

Established 1835.

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper and for Transmission Abroad.]

No. 3190.—VOL. LXVI.

London, Saturday, October 10, 1896.

PRICE..... SIXPENCE.
BY POST, £1 4s. PER ANNUM.

A. CORNFORTH AND CO.,
STOCK BROKERS AND MINING SHARE DEALERS
15, NEW BROAD STREET, LONDON, E.C.
BUSINESS IN ALL CLASSES OF STOCKS AND SHARES,
SPECIAL BUSINESS in KAFFIR, WEST AUSTRALIAN
and all Mining Shares. Prompt Delivery made a special feature.
Mining Circular free on application.
Bankers: CITY BANK.—Telegraphic Address: "Atheney, London."

ASSAY OFFICE AND LABORATORY.
B. KITTO'S,
30 and 31, ST. SWITHIN'S LANE, LONDON, E.C.
ASSAYS MADE OF ALL ORES. ANALYSES.
ASSAYING TAUGHT.

T. VAUGHAN HUGHES,
Assoc. Royal School of Mines, Fellow of the Institute of Chemistry, &c.,
London.
METALLURGIST, ASSAYER, MINING and ELECTRICAL ENGINEER.
Analyses and Technical Analyses of all kinds performed.
Sampling of Ores, &c., and Examination of Mining Properties
undertaken in any part of the World. Negotiations for the Sale of
Mining Properties conducted.
List of Charges furnished on Application.
ESTABLISHED 1888.
Address: ASSAY OFFICE,
GREENFIELD, HOLYWELL,
Near CHESTER, ENGLAND.

ANDREWS and COMPANY,
MINING AGENTS AND SHARE DEALERS,
105, LONDON WALL, LONDON, E.C.
10 YEARS' EXPERIENCE IN ENGLAND, AFRICA, AND SOUTH AMERICA
Properties Inspected and Reported upon
MINING MACHINERY AND REQUISITES SUPPLIED.
Telegraphic Address: "OFICINA, LONDON." Bankers: BROWN, JASON, and CO.

HERBERT T. MARKS, M.I.M.E.,
Consulting Mining and Metallurgical Engineer.
(Late) Mining Engineer and Assayer to the Transvaal Government
Surveys, Plans, Assays, Reports on Mineral Properties Executed.
Erection of Mining and Metallurgical Machinery Undertaken.
Properties Represented.
Eleven Years' Practical Experience.
HIGHEST REFERENCES.
May be consulted by Shareholders and Intending Investors in South African
Mining Properties.

New Broad Street House, London, E.C., and
17 and 18, Goodman's Buildings, Johannesburg.
Telegraphic Address: "Topazite," London. "Mazorite," Johannesburg.
Government Examiner under the Bureau of Mines' Act.
Fossil Agent of the Cassell Gold Extracting Company (Limited), Glasgow.
Five Years in British Columbia, and for several years at Swansea and Redruth.
Information supplied to Syndicates at moderate terms.

W. PELLEW HARVEY,
F.C.S. M.Fed.Inst.M.E.,
MINING ENGINEER AND METALLURGICAL CHEMIST,
VANCOUVER, BRITISH COLUMBIA.
See A.R.C. and Mining and Metal's Codes. Cable:—"Analysis," Vancouver
Canada.

Government Examiner under the Bureau of Mines' Act.
Fossil Agent of the Cassell Gold Extracting Company (Limited), Glasgow.
Five Years in British Columbia, and for several years at Swansea and Redruth.
Information supplied to Syndicates at moderate terms.

PUMPING MACHINERY.

See Illustrated Advertisement on Page 1275.

HATHORN, DAVEY and CO., LEEDS.

CANNOCK CHASE COAL BY CANAL
AND RAILWAY.

THE COMPANY SEND COAL BY RAILWAY in Trucks to all
Stations, and load Canal Boats at their extensive Wharves on the
Anglo-British Branch of the Birmingham Canal, adjoining the Colliery;
and also at Huddersfield Basin, Cannock. For Prices, apply to

J. NEWLAND BROWN,
WARWICK CHAMBERS, CORPORATION STREET,
BIRMINGHAM.

Mail Department: COLWRE CHAMBERS, 1, NEWHALL ST., Birmingham.
London Office: 9 and 10, Southampton Street, High Holborn, W.C.

GOLD ASSAYING, &c.

GENTLEMEN having only a short time at their disposal can
obtain SPECIAL INSTRUCTION in ASSAYING ORES of all
kinds.

For Prospects, &c., apply to

MARTIN and PETHYBRIDGE,
ASSAYERS, &c., LABORATORY AND TESTING WORKS,
188, KING'S ROAD, CHELSEA, S.W.

Complete Analysis of Constituents of any Ore from £1 1s. to £2 2s.
GOLD ASSAYS CONDUCTED WITH CHECK. 7s. 6d. PER SAMPLE.
GOLD ORES PRACTICALLY TESTED BY STAMP BATTERY
And other processes.

ASSAYING AND METALLURGY.

SPECIAL facilities are given for INSTRUCTION and PRACTICE
in the ASSAYING and TREATMENT of GOLD and all other
ores in the Metallurgical Laboratories of King's College, Strand,
London. Persons of all ages, are admitted at any time for a period of
one month or upwards. Special arrangements are made for those
who cannot devote their whole time to the work. The laboratory,
which is open every day, is open 7 to 9 on Friday evenings
and other particulars apply to Professor HUNTINGTON.

J. GRANT MACLEAN,
STOCK AND SHARE BROKER, STIRLING, N.B.

TELEGRAPHIC ADDRESS—"BONDING, STIRLING."

Clients supplied gratis with Price Lists and Prospectuses explaining
the whole system of dealing in Shares.

REFERENCES ON APPLICATION.

Refers to his Share Market List on Page 1294 of to-day's Journal.

GEORGE GREGORY AND CO.,
STOCK AND SHARE DEALERS,
LONDON, MANCHESTER, LIVERPOOL, BRIGHTON, HASTINGS.

Every Investor and Speculator, before operating, should read
Gregory's "Hints to Speculators." 420 pages. Ninth Edition,
Illustrated. Gratis and post free on application to

GEORGE GREGORY & CO.,
STOCK AND SHARE DEALERS.

HEAD OFFICES:
NOS. 3 AND 4, TOKENHOUSE BUILDINGS, LOTHBURY, BANK OF
ENGLAND, LONDON, E.C., and BRANCHES.

J. R. and W. P. BAINES,
SHARE BROKERS, MANCHESTER.

TELEGRAMS—"JARBAINES." (ESTAB. 1855.) TELEPHONE—2357 (Nat.)
Refer to their Market Report on page 1294 of this Journal.

Mr. DAVID DRAPER,

F.G.S. London,

SECRETARY GEOLOGICAL SOCIETY OF SOUTH AFRICA,

Has opened a permanent Office at

448, MANSION HOUSE CHAMBERS,

11, QUEEN VICTORIA STREET,

LONDON, E.C.

L. C. NICKERSON and CO.,
MEMBERS COLORADO SPRINGS MINING STOCK ASSOCIATION

Do a General Commission Business in

CRIPPLE CREEK MINES;

PROSPECTS AND LISTED MINING STOCKS.

HIGH-GRADE AND DIVIDEND-PAYING STOCKS A SPECIALTY.
Portland, Isabella, Union, Elkhorn Consolidated, Moon, Anchor, and Anaconda
are selling far below their intrinsic value.

Correspondence solicited. Highest Bank References furnished.

104, Pikes Peak Ave., P.O. Box 491, Colorado Springs, Colo., U.S.A.

W. MCCHELERY, C.E.,
SANITARY SPECIALIST,

NEVILLE CHAMBERS, 42, WESTGATE ROAD,

NEWCASTLE-ON-TYNE.

BRITISH GUIANA AND THE NEW GOLD
INDUSTRY.

BRITISH GUIANA BANK.
Incorporated by Ordinance of the Governor and Court of Policy of British
Guiana 11th November, 1836.

Confirmed by the Queen in Council, 6th October, 1838.

SUBSCRIBED CAPITAL..... \$1,400,000 | PAID-UP..... \$926,520

RESERVE FUND, \$288,000

CHAIRMAN: HON. W. A. WOLSELEY.

HEAD OFFICE: GEORGETOWN, DEMERARA.

MANAGER: GEO. W. LANE. | ACCOUNTANT: F. A. CONYERS Jun.

BRANCH OFFICE: NEW AMSTERDAM, BERBICE,

London..... Smith, Payne, and Smiths,

New York..... Maitland, Phelps, and Co.

British North America. Bank of British North America.

Newfoundland..... Bank of Nova Scotia, St. John's.

Current Accounts opened in accordance with the usual practice of Bankers.

Money Received on Deposit or Interest. Bills of Exchange negotiated.

Letters of Credit issued by London Agents on Demerara free of charge.

Gold Purchased or Shipped on Consignment.

Bills Collected and every other description of Banking Business transacted.

THE BANK OF AFRICA (LIMITED).

ESTABLISHED 1879.

Head Office, 113, Cannon Street, London.

SUBSCRIBED CAPITAL..... \$1,575,000

Paid-up, £525,000; Reserve Fund, £297,500

General Manager—JAMES SIMPSON, Cape Town.

BRANCHES

Allwai North, Cape Town, Cradock, East London, Grahamstown, Kimberley

King Williams Town, Oudtshoorn, Paarl, Port Elizabeth, Queen's Town

Bethlehem, Bloemfontein, Fauresmith, Harrismith, Kroonstad, Lady

brand, Winburg, Durban, Newcastle, Pietermaritzburg, Barberton, Joha

nnesburg, Klerksdorp, Pretoria, Vryheid, Heila, Delagoa Bay, Bulawayo,

Salisbury, Umtali.

The Bank issues drafts, makes telegraphic remittances, buys and collects bills

and conducts all kinds of banking business.

Deposits received on terms which may be ascertained on application.

R. G. DAVIS, Secretary.

ESTABLISHED 1851

BIRKBECK BANK

SOUTHAMPTON BUILDINGS, CHANCERY LANE, LONDON.

TWO-AND-A-HALF per CENT. INTEREST allowed on DEPOSITS repayable

on Demand.

TWO per CENT. on CURRENT ACCOUNTS on the minimum monthly

balances, when not drawn below £100.

SAVINGS DEPARTMENT

For the encouragement of Thrift, the Bank receives small sums on Deposit

and allows Interest monthly on each completed £1.

The Birkbeck Almanack, with full particulars, post free.

FRANCIS RAVENSCROFT, Manager

For Index to Advertisements see Page 1274.

For Literary Contents see Page 1288.

CHARLETON AND CO.,

A. G. CHARLETON, A.R.S.M., F. W. GREY, A.R.S.M.,
MINING ENGINEERS AND MINE MANAGERS,
undertake Inspections and Reports and the Design of Mining and
Milling Plant of all kinds.

Dashwood House, 9, New Broad Street, E.C.

Cable Address: "Ingressio." Bedford McNeill's and Broomhall's Codes.

ALBERT H. HALDER,

TELEPHONE No. 11,736. CONSULTING ENGINEER.
Member Fed. Inst. M.E., Member Am. Inst. M.E.

Offices: BULAWAYO and JOHANNESBURG.

Is prepared to give Reports upon Mining and other Properties
in Transvaal and Rhodesia.

Management and Supervision of Mines and Finance
Companies.

HIGHEST REFERENCES.

At present in London. Temporary address,
6, DRAPERS' GARDENS, E.C.

JAMES H. HACKET, Mining Engineer,
Is PREPARED to INSPECT and REPORT on MINING
PROPERTIES in WESTERN AUSTRALIA.

Address: J. H. HACKET,

Telegraph Office, Kurnelpie, Western Australia.

DONALD CLARK, B.C.E., M.E.,

BAIRNSDALE, VICTORIA.
Director of the North Gippsland School of Mines (which has the
most perfect Gold-testing Machinery in Australia),
REPORTS ON MINES AND MINING PROPERTIES.

Gippsland Speciality.

HOWARD WEST, A.R.S.M.,
MINING ENGINEER.

Two-and-a-half Years in the Kootenay District.
Properties Examined and Reported on. General information given
about Mines in the Province.

A.B.C. CODE. NEW DENVER, BRITISH COLUMBIA.

ASSAY OFFICE AND ORE TESTING WORKS.

JOHN D. WARREN,

(Late HERBERT R. EDMANDS)
BERKLEY GROVE WORKS,
BERKLEY ROAD, CHALK FARM, N.W.

Gold and Silver Assays, &c., Cyanide, Amalgamation,
Chlorination, or Concentration Tests, including Assays, £1 each.
Assays made of all Ores.

PUMPS AND PUMPING
MACHINERY.

SEE ILLUSTRATED ADVERTISEMENT (PAGE 1275).

JOSEPH EVANS & SONS, Wolverhampton.

APPLEBY'S HANDBOOK OF MACHINERY.

By C. J. APPLEBY, M Inst.C.E.

New Edition, entirely re-written, with numerous Illustrations and
Prices. The Sections now ready relate to (1.) Prime Movers (Engines,
Turbines, &c.), (2.) Machine Tools and Accessories (6.) Mining
Colonial, and Manufacturing Machinery. Cloth, 3s. 6d. each Section.
MINING MACHINERY separately, cloth, 2s. 6d.

E. and F. N. SPON, 125, Strand, London, W.C.

BARTON, SONS, & HE

INDEX TO ADVERTISEMENTS.

(THOSE WITHOUT NUMBER OF PAGE DO NOT APPEAR IN THIS ISSUE.)

	PAGE		PAGE		PAGE		PAGE		PAGE		PAGE	
Anderson, Robert Hay	1285	Mining Engineer	1285	Davis and Son	1277	Mining, &c., Instruments	1277	Negretti and Zambra	...	Surveying and Mining Instruments	...	
Andrews and Company	...	Mining Agents	1278	Daw, A. and Z.	1282	Rock Drills	1282	Nickerson and Co.	...	Bankers and Brokers	...	
Appley, Bros.	...	Handbook of Machinery	1278	Delta Metal Co. (Ltd.)	1284	Metal	1284	Nobel's Explosives Co. (Ltd.)	...	Water Cartridges, &c.	...	
Austin, J. B.	...	Mineralogist	1311	Draper, David	...	...	1273	Parkin	...	Signal Boxes	...
Australian Gold Recovery Company	1288	Easton, Anderson, and Gooldan	...	Mining Machinery &c.	1273	Pass and Son	...	Buyers of Lead Ashes, &c.	...	
Baines, J. R. and W. P.	1273	Elliman, Sons, and Co.	...	Embrocation	1301	Phosphor Bronze Co. (Ltd.)	...	Bulls Metal, &c.	...	
Bank of Africa, (Ltd.)	1273	Evans, Joseph and Sons	...	Pump	1273-1275	Piggott and Co.	...	Welded and Riveted Pipes	...	
Barton, Sons, and Hawer	...	Mining Engineers, &c.	1302	For Sale—Gold Mine	...	...	1300	Publications—	...	...	...
Bennett, Sons, and Co.	...	Fuse Manufacturers	1302	Tay Iron and Engineering Works (Ltd.)	...	Machinery	1300	Davis, Henry	...	Mining Machinery	...	
Birkbeck Bank	1273	Fraser and Chalmers (Ltd.)	...	...	1274	Ireland, James	...	Colliery Ready Books	...	
Blake and Knowles (Limited)	...	Pumps	1304	Frictionless Engine Packing Company	...	...	—	Karuth, Frank	...	Notes on the Philippine Islands	...
Bowes-Scott and Western	...	Mining Machinery	1304	Gates Ironworks Co.	...	Rock and Ore Breaker	1302	Louis, Henry	...	A Hand-book of Gold Mining	...	
British Guiana Bank	1273	Green, G.	...	Ore Dressing Machinery	1303	Nicholas, William	...	The Golden Quartz Reefs of Australia	...	
Brunton and Pearce's Patent Mine Transit.	1304	Gregory, G., and Co.	...	Stock and Share Dealers	1273	Rose, James	...	New Guide to the Iron Trade	...	
Bute Works Supply Company (Limited)	...	Steel Nails, &c.	1288	Hackett, James H.	...	Mining Engines	1273	Safford, Frank	...	The Law of Merchandise Marks	...	
Business Cards—	...	Aerial Ropeways	1301	Hadfield's	...	Steel Castings	—	Tacknote...	...	Form of Licence to Explore	...	
Commins, K. E.	...	Dry Concentration	1301	Hader, Albert H.	...	Consulting Engineers	1273	Wilkinson, W. F.	...	History of the Holm bush, Redmoor, &c.	...	
Clarkson-Stanfield Concentrator (Ltd.)	...	Tube Maker	1301	Hansell, Charles and Co.	...	Miners' Drill, &c.	1304	Wilson, Edmington	...	... Publishers	...
Chatterton, George J.	...	Mining Instruments	1301	Hansell, F. L.	...	Haulage Rollers	—	Railway Passengers Assurance Company	...	...	...
Davis and Son	...	Mining Machinery	1301	Harvey, Julius and Co.	...	Mining Machinery	1303	Robey and Co.	...	Engines and Oil Crushers	...	
Davis and Sons, M. H.	1301	Hathorn, Davey and Co.	...	Mining Engineer	1273	Roburite Explosives Co. (Ltd.)	...	Explosives	...	
Fraser and Chalmers (Ltd.)	...	Rock and Ore Breaker	1301	Heff, Chas. Louis	...	Pumping Engines	1273-1275	Ropeway Syndicate	...	Aerial Wire Ropeways	...	
Gates Ironworks Co.	...	Magnetic Ore Separators	1301	Holman Bros.	...	Turbines	1274	Sachsenberg, Bros. (Limited)	...	Engineers and Shipbuilders	...	
King, Frederick J.	...	Mining Machinery	1301	Howes, S.	...	Rock Drills and Compressors	1277	Sales by Auction	...	...	...
Larmuth, Thomas, and Co.	1301	Hughes, T. Vaughan	...	Turbines	1302	Sandycroft Foundry Company	...	Electrical Machinery	...	
Lubrig Coal and Ore Dressing Appliances (Ltd.)	...	Assayers, &c.	1301	Humboldt Engineering Works Co.	...	Mining Engineer	1273	School of Mining, Engineering, and Metallurgy, Tiverton, Cornwall, &c.	...	Rock Drills and Compressors	...	
Mason, J. H.	...	Water Cartridges, &c.	1301	Huntington, Professor	...	...	1303	Schram and Co.	...	...	...
Nobel's Explosives Co. (Ltd.)	...	Metal Perforators	1301	Ingersoll-Sergeant Drill Co. of America	...	Instruction in Assaying	1273	Shipping—Donald Currie and Co.	...	...	...
Pool, J. and F.	...	Engines and Ore Crushers	1301	Rock Drills and Compressors	...	...	1274	Union Steamship Company	...	...	...
Robey and Co. (Ltd.)	1301	Jones, J. A.	...	Mining Engineers	—	Smith, Allison D.	...	Mining Engineers	...	
Schram and Co.	...	Rock Drills	1301	Kitto, B.	...	Assay Office	1273	Smith, Thomas and Sons	...	Mathematical Instruments	...	
United Asbestos Co. (Ltd.)	...	Asbestos	1301	Larmouth, T. and Co.	...	Mining Machinery	1276	Stewart, W. F.	...	Mathematical Instruments	...	
Unity Fire	1301	L. LePersonne	...	Iron Merchants, &c.	1288	Stephens, James	...	Mathematical Instruments	...	
Van Wagener	...	Mining Engineer	1301	Maclean, J. Grant	...	Shares and Iron Broker	1273	Stewart and Clydesdale	...	Smelter, &c.	...	
Cannock Chase Colliery Company	...	Coal Exporters	1273	Marks, H. T.	...	Consulting Mining Engineers	1273	Tangyes Limited	...	Iron and Steel Tubes	...	
Cassell Gold Extracting Co. (Ltd.)	...	MacArthur-Forrest Process	1301	Marsden, H. R.	...	Stone Breakers and Ore Crushers	1304	To Let	...	Engines, &c.	...	
Champion Rock Borer Co.	...	Rock Borers	1301	Martin and Pethbridge	...	Assay Laboratory	1273	Tonge, Thomas	...	Mining Agents	...	
Charleton, A. G., and Co.	...	Mining Engineers	1273	McChery, W.	...	Sanitary Specialist	1273	Tuck and Co. (Ltd.)	...	Packing Manufacturers	...	
Clark, Donald	...	Mining Engineer	1273	McNeil's Code	...	Aluminium	1276	United Asbestos Co. (Ltd.)	...	Asbestos	...	
Clarkson-Stanfield Concentrator (Ltd.)	...	Dry Concentration	1277	Merton and Co.	...	...	1288	Walker Brothers	...	Air Compressing Engines	...
Clayton and Shuttleworth...	...	Engineers	1300	Mining and Industrial Exchange of New York	...	...	...	Wanted	...	...	...
Cornforth and Co.	...	Share Dealers	1273	Monger, J. and Co.	...	Merchants and Forwarding Agents	1288	Warren, John D.	...	Assay Office	...	
Cotton Powder Co. (Ltd.)	...	Explosives	1301	...	...	...	...	West, Howard	...	Mining Engineers	...
Croby Lockwood and Son's	1301	...	...	...	...	...	...	...	...
Davies, Henry	...	Miners	1301	...	...	...	...	...	...	...	...

ROCK DRILLS FOR STEAM OR COMPRESSED AIR.

AIR COMPRESSORS.

COAL MINING MACHINE.

DIAMOND & PROSPECTING DRILLS.

THE INGERSOLL - SERGEANT DRILL CO.,

114a, QUEEN VICTORIA STREET, LONDON, E.C.

SEND FOR CATALOGUE.

TELEGRAMS:

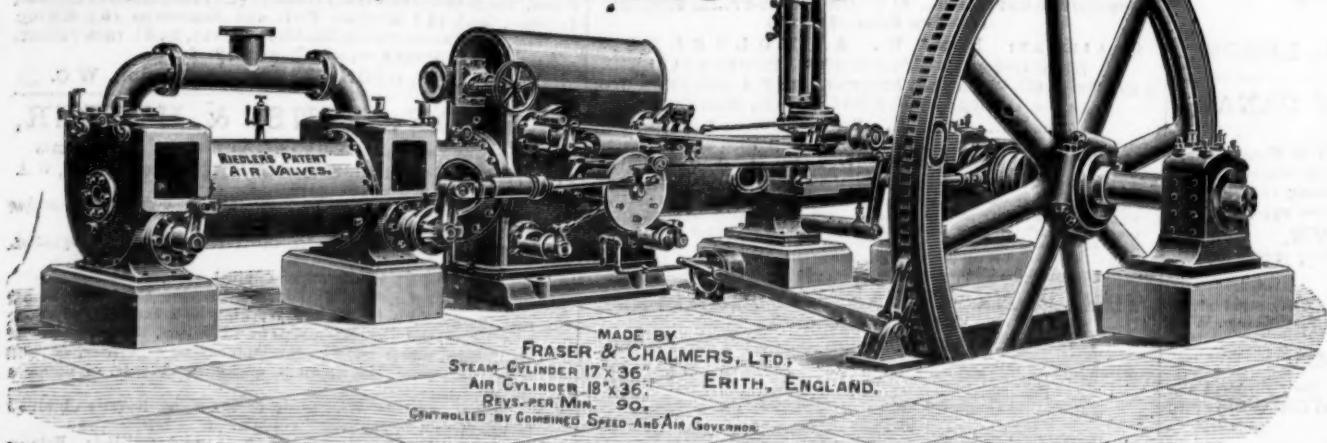
"ENYAM, LONDON."

A. E. W. GWYN, Agent.

FRASER AND CHALMERS, LIMITED.

Makers of all Classes of Improved MACHINERY for

Mining, Milling, Smelting, Concentration & Leaching.



RIEDLER SYSTEM

Of PUMPS and COMPRESSORS insuring highest efficiency. The use of mechanically controlled valves allows of high piston speed under heavy pressure, resulting in reduction of size of engine for given duty and greater economy of steam. At Paris the Riedler system effected a great economy of fuel in the Compressed Air Plant. At the Butte and Boston Mine, Montana, the Riedler Pump effected a saving of 60 per cent. of fuel over pumps previously used.

Send for Pamphlet.

Works:

ERITH, KENT; CHICAGO, ILL., U.S.A.

Office:

43, Threadneedle St., LONDON, E.C.

W. F. STANLEY

Mathematical Instrument Manufacturer

To H.M. Government, Council of India, Science and Art Department, Admiralty, &c.

MINING, SURVEYING AND DRAWING INSTRUMENTS

OF EVERY DESCRIPTION, OF THE HIGHEST QUALITY AND FINISH, AT THE MOST MODERATE PRICES.

Price Lists post free.

Address—Great Turnstile, Holborn, London, W.C.

GOLD MEDAL Inventions Exhibition, 1888

Mining

1890

THE WESTERN DAILY MERCURY.

The Paper for News, The Paper for Advertisements.

The Paper for the People.

THE WESTERN WEEKLY MERCURY

The Paper for the Household.

These Journals have an enormous circulation throughout Devon and Cornwall, and are conveyed by specially chartered trains.

OFFICES: FLYMOUTH.

LIVERPOOL JOURNAL OF COMMERCE

Is the best FINANCIAL and COMMERCIAL PAPER in the Provinces.

Is now Enlarged to Eight Pages.

Contains more Commercial and Shipping News than any other Morning Paper.

Proprietor, CHARLES BIRCHALL, 32, Castle Street, Liverpool

LONDON OFFICE.—38, GRACECHURCH STREET.

WATER-POWER.

TURBINES OF ALL EFFICIENT TYPES.

Hett's Patent Pelton Wheels.

CHAS. LOUIS HETT,

HYDRAULIC ENGINEER,

BRIGG, ENGLAND.

The COUNTY GENTLEMAN'S PAPER for Cheshire, Shropshire, and North Wales is

THE CHESTER COURANT (ESTABLISHED 1730).

The CHESTER COURANT goes into all the best houses, and has a Subscription List of remarkable scope and character.

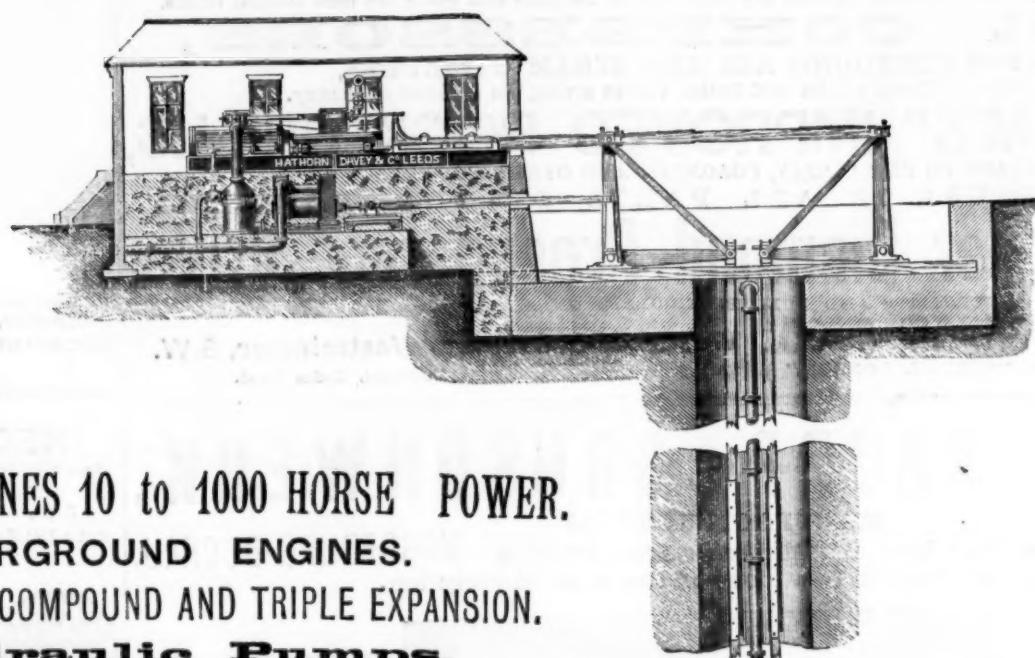
It is a most suitable medium for advertising Patent Machinery used on large Farms or County Estates.

HATHORN, DAVEY & CO., LEEDS.

The DAVEY PUMPING ENGINE for DRAINING MINES

Is in use all over the World, and unquestionably has proved itself to be without a rival in **SAFE** and **EFFICIENT WORKING** and **ECONOMY**.

REGISTERED TELEGRAPHIC ADDRESS:



SURFACE ENGINES 10 to 1000 HORSE POWER.

UNDERGROUND ENGINES.

STEAM PUMPS, COMPOUND AND TRIPLE EXPANSION.

Hydraulic Pumps.

DRAINAGE PUMPS. WATER WORKS PLANT. DOCK MACHINERY, CAPSTANS, &c.

CATALOGUES ON APPLICATION.

“HATHORN, LEEDS.”

JOSEPH EVANS & SONS,

Telegrams:

“EVANS,” Wolverhampton.

Nat. TELEPHONE, No. 7039. TRADE



Write for

“MINING PUMP” Catalogue.

MARK.

FOR MINES.

EXTRANEous GEAR.

SINKING PUMPS

NO TAPPETS, LEVERS, OR

“EVANS and TONKIN’S” Patent “CORNISH” SINKING PUMPS have been used on all the recent modern sinking operations of importance, including

North’s Navigation Collieries, the Blackwall Tunnel, the Barry Dock Extension, Hockley Hall Colliery, the Griff Colliery Sinkings, the Coppice Colliery, the Fishley Colliery, the Moss Hall Colliery, the North Walbottle Colliery, the West Hallam Colliery, Port Talbot Docks, Devonport Docks, and other large Sinkings, also North Wales, Rand, West African, West Australian, Victorian, South American Gold Mines, &c., &c.

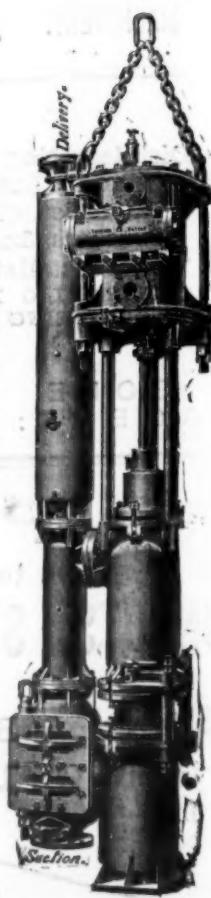
London Office
16, UNION COURT, OLD BROAD ST.,
E.C.

DEPOTS:
NEWCASTLE-ON-TYNE,
GLASGOW, WAKEFIELD,
MANCHESTER,
CARDIFF, and BELFAST.
JOHANNESBURG.
FIG.



The “CORNISH” STEAM PUMP.
The “DUPLEX” STEAM PUMP.
The “RAM” STEAM PUMP.
The “RELIABLE” STEAM PUMP.

DONKEY PUMPS.
HORSE PUMPS,
POWER PUMPS,
AIR COMPRESSORS,
&c.



“STRAIGHT-LINE”
PATTERN
SINKING PUMP

**CULWELL
WOLVERHAMPTON.**

FIG. 875, “FLUOMETER”
PATENT STEAM VACUUM
PUMP.

REVOLUTION IN ROCK DRILLING



"OPTIMUS" COMPOUND ROCK DRILL.

(P. J. OGLE'S PATENT.)

Consumes 40 per cent. less Compressed Air than any other Drill at the same time giving the most effectual results.

AIR COMPRESSORS,

WITH COMPOUND AIR AND STEAM CYLINDERS,
Fitted with SCHRAM'S Inlet and Outlet Valves giving the greatest efficiency.

"SCHRAM'S" IMPROVED ROCK DRILLS,

SUPPLIED TO THE INDIAN, COLONIAL, AND OTHER GOVERNMENTS.

2500 IN USE IN ALL PARTS OF THE WORLD.

Hand-Power Diamond Prospecting Drills.

ESTIMATES AND FULL PARTICULARS ON APPLICATION.

RICHARD SCHRAM & CO., 17a, Great George St., Westminster, S.W.

TELEGRAMS "SCHRAM, LONDON," A1, A.B.C. and The Engineering Telegraph Codes Used.

NEGRETTI AND ZAMBRA'S,
SURVEYING & MINING INSTRUMENTS



Theodolites, Levels, Circumferenters, Miners' Dial Compasses, Drawing Instruments, Levelling Staves, Barometers, Thermometers, Air Meters, Binoculars, Telescopes, &c., &c.

ILLUSTRATED PRICE LISTS AND ESTIMATES POST FREE TO ALL PARTS OF THE WORLD.

NEGRETTI & ZAMBRA,

Scientific Instrument Makers to Her Majesty the Queen and British and Foreign Governments.

38, HOLBORN VIADUCT.

BRANCHES: 45, Cornhill, and 123, Regent Street, London.

IMPROVED Winding Indicators

WITH
INDICATING SIGNAL BELL
COMBINED,

As shown in Illustration,
Or either of the two separately is
required.

Made to suit any Winding Engine
or for hauling purposes; with
Bell, to denote when to cut off
steam; which can be altered in a
few minutes to ring at any part
required.

PARKIN,

LIVERSEDGE, YORK.

Watch this Advertisement
every other week.

SOLE AGENTS FOR SCOTLAND:
MESSRS. ARCHD. BAIRD & SON,
59-61, Waterloo Street, Glasgow.

Export Agent:—MR. STEPHEN HUMBLE, Junr.,
Emerson Street, Southwark, S.E.

EL MINERO MEXICANO.

The Mining and Industrial Journal of Mexico.

ESTABLISHED 1873.

Published in the City of Mexico every THURSDAY,
in the Spanish Language.

Taken by Mine Owners, Capitalists, Manufacturers, Merchants,
the richest and most liberal people, all over Mexico.

THE BEST ADVERTISING MEDIUM.

MEXICAN PATENT & TRADE MARK AGENCY,

A, Independencia No. 1, City of Mexico.

RICHARD E. CHISM, M.E., Editor and Proprietor.

FRIED. KRUPP GRUSONWERK,

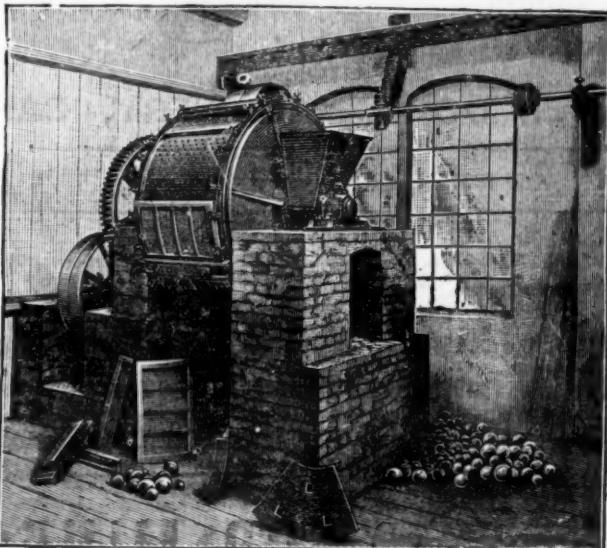
MANUFACTURERS OF

1. Chilled Cast Iron, Cast Steel and Malleable Iron Articles. MAGDEBURG-BUCKAU.
2. Machinery and Apparatus for treatment of Ore of all description.

GOLD EXTRACTION MACHINERY.

(Laszlo' Amalgamators giving 20 to 40 per cent. more Gold than others.)

SILVER EXTRACTION MACHINERY.



STAMP BATTERIES.

Patent Ball Mills.

(Dry Crushers.)

ORE CONCENTRATION

DRY SEPARATOR OF PAPE-HENNEBERG

CATALOGUES IN ALL LANGUAGES.

SOLE AGENT: W. STAMM, 3, EAST INDIA AVENUE, E.C.

FOR PURE ALUMINIUM

98 to 99 $\frac{1}{2}$ per cent. (98 per cent. minimum guaranteed) in

INGOTS, STICKS, & ROLLING SLABS;

ALSO FOR

SHEETS, &c., AND FERRO-ALUMINIUM.

ALUMINIUM.

APPLY TO
HENRY R. MERTON & CO.,

2, Metal Exchange Buildings, Leadenhall Avenue.

LONDON, E.C.

AGENTS FOR THE BRITISH ALUMINIUM COMPANY, LIMITED.

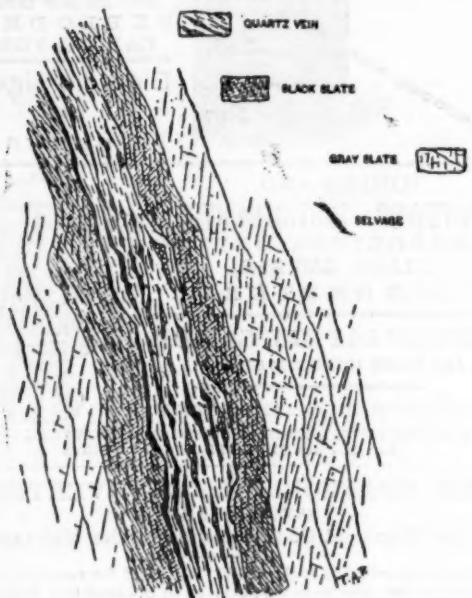
VEIN WALLS.

By T. A. RICKARD, Denver, Colorado.

(Continued from page 1246.)

OF the change observable in the character and value of the mineral ingredients of a vein in its passage from one kind of rock into another it is hardly possible to speak in parenthesis. One of the best known examples is that of the old D'Locath Mine in Cornwall, where the vein, in leaving the clay slate (killas) and penetrating the granite, changed from a copper-bearing into a tin-bearing lode. I might also mention the silver-lead veins of Pontgibaud, in France, which are in a gneiss country diversified by dykes of granulite. The ore veins have been formed along fractures within the dykes, and on their line of contact with the gneiss. When the dyke diminishes in size the ore decreases in width; when the vein penetrates into the gneiss the ore disappears. The best ore is associated with the kaolinisation of the feldspar of the granulite, and when the latter becomes hard and unaltered in depth the ore pinches out.

Fig. 5.



BONANZA VEIN, OREGON.

On Newman Hill, Rico, Colorado, the veins of rich gold and silver-bearing ores are noticeably affected by the character of their rock walls. The particular changes due to penetrating from lime into sandstone have already been mentioned in connection with the veins of the Enterprise Mine, but there is also the more general observation that when the sedimentary beds are black the veins in them are rich when they lose that black colour the ore diminishes. Other instances occur to me, but the above are typical. This inter-dependence between country and ore has been used as an argument in support of the now crippled lateral secretion theory. It has been suggested¹ that this relation, often noticed in vein mining, points to the derivation of the ore from the enclosing rock, and that some formations have an enriching effect, because they have been the source of the valuable metals now found in the veins penetrating them. But as Cotta long ago suggested, the influence of the physical texture and chemical composition of the country, as facilitating the deposition of the ore, may explain this phenomenon. The former would affect the rate of cooling and the formation of the adhesive crusts. The latter would act by direct chemical precipitation.

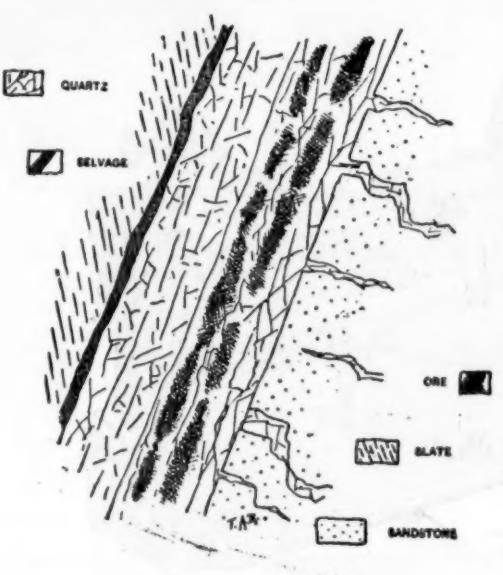
As I suggested in the discussion of the paper just referred to, the local enrichment or impoverishment of veins may be explained by the presence or absence in the enclosing formation of precipitating agents. What the agent has been we can only in rare instances guess. At Rico it was undoubtedly the carbonaceous matter enclosed in the lower carboniferous shales, limestones, and sandstones. At Pontgibaud it was probably the feldspar which made room for the silver-bearing galena, and in Cornwall also the beautiful pseudomorphs of tinstone after feldspar suggest similar chemical interchanges.

In the case of veins which lie along the bedding planes of sedimentary rocks, the dissimilarity between the enclosing walls may not go further than a slight difference in the grain of two beds of

sandstone, the colour of two beds of slate, &c., or it may reach the more marked diversity presented by rocks as entirely unlike as a quartzitic sandstone and soft slate.

Fig. 5 represents a gold vein, following the bedding of and enclosed by a band of black slate, which is in turn flanked on either side by light gray slates. The ore consists of ribbons of quartz, mingled with strips of included country, and separated from the outer slates by a selvage, faint on the hanging wall but strong on the footwall. The drawing was made July 3, 1895, in the upper level of the Bonanza Mine, Baker County, Oregon.

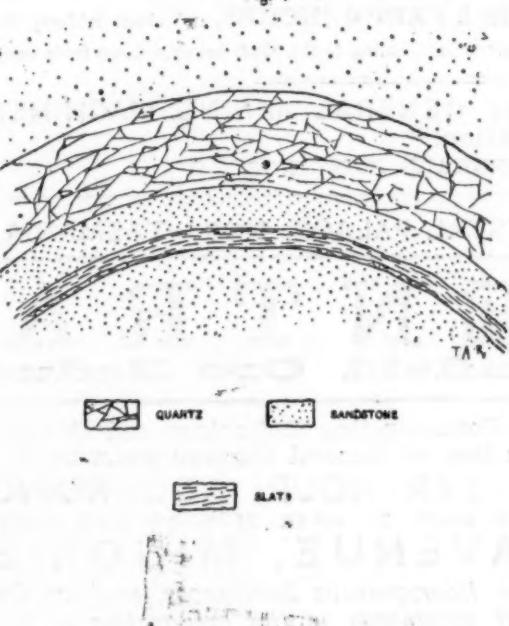
Fig. 6.



SHENANDOAH MINE, VICTORIA.

The comparatively straight walls of ordinary vein mining occasionally give place in veins of the bedded class to surfaces, having a marked curvature. Such walls characterise the saddle

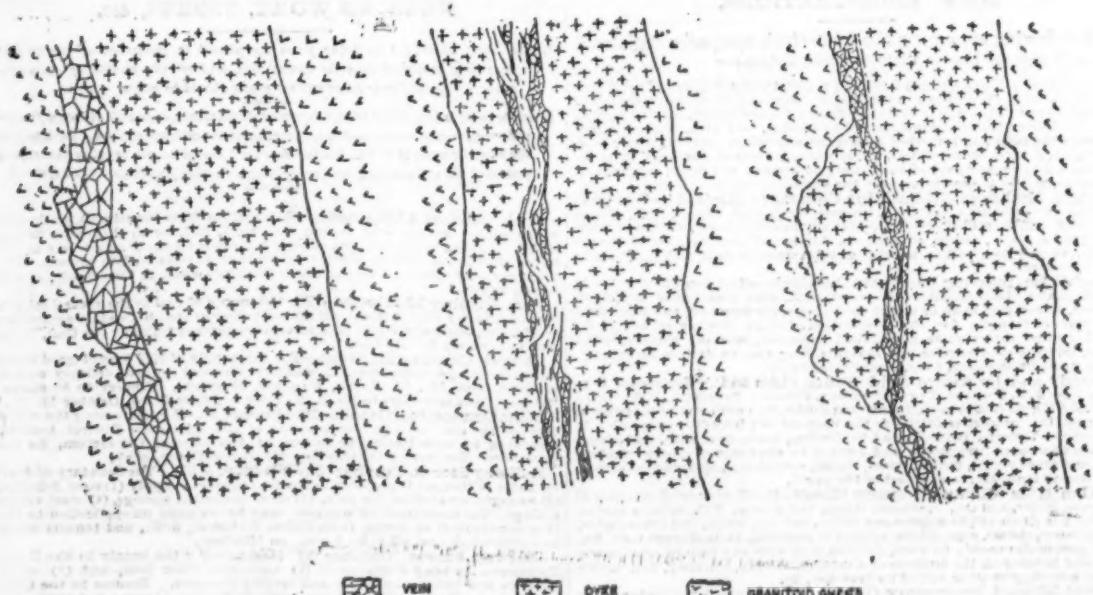
Fig. 7.



JOHNSON'S MINE, VICTORIA.

reef, a type of lode structure common in only two known mining districts, namely, Bendigo in Australia and Waverly in Nova Scotia, unless it be true, as is now stated on good authority, that the Broken Hill lode in New South Wales is also a saddle reef.

Fig. 8.



TYPES OF VEIN STRUCTURE IN GILPIN COUNTY COLORADO.

¹ A paper read before the American Institute of Mining Engineers.

¹ See "The Lodes of Pontgibaud," by the writer, in the *Engineering and Mining Journal* of August 11 and 18, 1894.

¹ At, for instance, in the paper "On Some Evidences of the Formation of Ore Deposits by Lateral Secretion in the John Jay Mine, at Providence, Boulder County, Colorado," by P. H. Van Diest, in the *Proceedings of the Colorado Scientific Society*, Vol. IV., p. 340, and in the discussion of the said paper, *id.*, p. 340.

In these regions, gold-bearing quartz is found along the bedding planes of folded sedimentary rocks. While anticlinal folds (or saddles) alternate with synclines (inverted saddles or troughs), experience has shown that the ore deposition is mainly confined to the former. Such a formation will offer many striking features, because of the occasionally very regular curvature of the walls. I remember, for instance, standing in the stopes just above the 980

feet level in the Johnson's Mine at Bendigo, and seeing the footwall curve underneath like the top of a boiler, while the hanging wall overhead like a Roman bridge. This was the apex of a saddle, as illustrated in Fig. 7, reproduced from a sketch made at the time.

The lode is seen to consist of white quartz about 2½ feet thick, separated from the overlying sandstone by a very regular parting of black clay. Underneath is about a foot of sandstone, then a dark seam of slate, from 5 to 6 inches thick, whose parting from the next bed of sandstone is marked by streaks of quartz, thinning out both

east and west. The downward continuation of such a formation (the "legs of the saddle") presents the appearance of an ordinary bedded vein, usually marked, however, by a noteworthy want of persistence of ore in depth. Of the many drawings illustrating such veins already contributed to the *Transactions*,¹ we have reproduced, in Fig. 6, the breast of the north end of the 1990 feet level in the Shenandoah Mine at Bendigo. The lode carries 2 feet of closely laminated quartz from which spurs or stringers go off into the underlying sandstone. The hanging shows a gouge or selvage,² separating the quartz from the overlying slate.

Many veins follow the contact between eruptive dykes and the metamorphic or sedimentary formations which they have penetrated. The dykes of quartz andesite porphyry traversing the granulite gneiss of the earliest mining districts of Colorado (in Boulder, Gilpin, and Clear Creek counties) offer many examples of this type of vein structure. In such cases the mineralization may often be found to have spent itself on the more soluble porphyritic igneous rock rather than upon the less soluble metamorphic. The walls of such veins will vary as the ore deposition has followed either fractures along the immediate contact, or those which ramify into the body of the dyke, or those again which cut across the latter where its irregular outline has been an obstacle to the main line of fissuring. These ideas are illustrated in the diagrams A, B, and C, Fig. 8.

¹ October 5, 1890. See also *Trans.*, XX., 506.

² By the writer, in Vols. XX. and XXI. "Selvage," "gouge," "dig," "pug," "fluncan" are all, more or less, synonymous. "A layer of soft stuff" would cover them all. It is, perhaps, worthy of notice, however, that our "selvage," used in this sense, is not the exact synonym, as it has often been supposed to be, of the German *Saalland*. A *Saalland* is a definite wall, as distinguished from a gradual transition from vein matter into country rock. A layer of soft material on the wall is a *Baug*.

(To be continued.)

MINING IN VICTORIA.

THE ANNUAL REPORT FOR 1895.

(FROM OUR OWN CORRESPONDENT.)

THE 1895 annual report of Mr. J. Travis, Acting Secretary for Mines, which has just been issued, contains many interesting facts. Some of the figures are not altogether new, having been published in *The Mining Journal* from time to time as they were issued by the department; but now they are collected altogether opportunity is given of making a very reliable comparison. Only a brief review of the facts presented and a little calm reflection on them is needed to establish the reputation of Victoria as the premier gold fields colony not only of the past but also of the present. During the past 45 years over £240,000,000 worth of gold has been raised within the colony. The total yield of gold for 1895 was 740,086 ounces, of the value of £2,960,344, as against 716,954 ounces, valued at £2,867,816 for 1894, and being an increase of 23,131 ounces, and in value £29,524. The increase is attributed chiefly to the developments of the Bendigo and Gippsland mines. In 1895, 875,738 tons of quartz were crushed, compared with 898,506 tons in 1894, a decrease of 22,788 tons, increased attention being given to alluvial mining. The yield of gold from the mills was 368,055 ounces, compared with 374,714 ounces the previous year, giving an average of 8 dwts. 14 grains per ton for the whole colony for 1895, as against 8 dwts. 8 grains per ton for 1894. From tailings the yield was 5380 ounces. Some 62,319 tons were treated by cyanidation and chlorination, averaging 1 dwt. 17 grains per ton. Concentrates gave 12,497 ounces. 5181 tons were treated, averaging 2 ounces 8 dwts. 6 grains per ton. Dealing with the separate fields, the following were the quantities of quartz treated, the yield of gold therefrom, and the average per ton in each mining district:

District.	Quantity treated.	Yield of gold.	Average per ton.
	Tons.	Oz.	dwts. grs.
Bendigo	380,733	144,851	0 7 14
Ballarat	271,280	83,828	0 6 4
Gippsland	54,491	54,543	1 0 0
Castlemaine	48,400	34,233	0 12 21
Maryborough	43,870	18,922	0 8 15
Ararat	31,445	12,233	0 7 18
Beechworth	25,517	22,421	0 17 13

These figures show Gippsland to stand third in respect to tonnage and first as to average, the heavy output at Walhalla having largely helped the former, while the small but exceedingly rich crushings in the Omeo division have been mainly instrumental in making the average so high. The gold yield for alluvial fields shows an increase of 25,594 ounces. The total amount won from this source for 1895 was 279,903 ounces, of the value of £1,119,612, as against 254,308 ounces, valued at £1,017,232 for 1894. The following were the largest yielding alluvial mines during the year:

Prentice Freshold Company, Rutherglen	16,704
Berry Consols Company, Smeaton	16,473
Madame Berry Company, Smeaton	14,839
North Duke Company, Timor	13,985
Chalk's No. 1 Company, Carisbrook	10,143
Great Northern Extended Co., Rutherglen	9,685
Chiltern Valley No. 2 Company, Chiltern	9,316

In this branch of mining Gippsland does not occupy so high a position; but this is accounted for by the fact that no deep leads have hitherto been worked here. In the course of a year or so, however, when developments at the Dargo High Plains and the Walhalla Deep Leads have further advanced, it may be anticipated that there will be a material addition in this department, and to the total yield of the Gippsland district. Already a promising commencement has been made by the formation of a strong company, the Madame Berry, on the Dargo High Plains, since the publication of the report, but it is a pity the company should have adopted a title which specially belongs to the Smeaton district. It is bound to cause confusion in the future. This duplicating of titles requires to be rigorously dealt with in the new Mining Bill. During 1895 there were working above and below ground, in connection with the gold mining industry, 29,897 men, and 819 employed in working coal and other minerals, an increase of 6000 during the two previous years. In locating them in their various districts, it is interesting to remember that the average value of gold raised per miner for the whole colony was £92 16s., while the Gippsland average was £100 per man. This latter information is not given in the report, but it is quoted in a return published some months ago by the department:—Ballarat, 618; Castlemaine, 5254; Beechworth, 4750; Bendigo, 4473; Maryborough, 4381; Gippsland, 3286; Ararat, 1030.

The total amount of dividends paid out by mining companies since the commencement of quartz companies in the colony (1857) to the end of 1895 was £40,124,214. The dividends for 1895 amounted to £438,507.0s. 7d. The amounts distributed in the different mining districts were as follows:—

Ararat, £28,425 6s. 7d.; Ballarat, £86,061 11s. 10d.; Beechworth, £60,882 5s. 8d.; Castlemaine, £35,255 3s. 2d.; Gippsland, £58,240; Maryborough, £40,800; Bendigo, £130,842 13s. 4d. The largest sums were paid by the following companies:— Madame Berry, Smeaton, £32,850; Long Tunnel, Walhalla, £27,000; South German, Maldon, £27,500; Prentice Freshfield, £24,000; Berry Consols, Smeaton, £22,000; New Rutherford, £24,000; Berry Consols, Smeaton, £22,000; New Prince of Wales, Bendigo, £20,625; Lady Birkly, Bendigo, £19,800; Magdala-cum-Moonlight, Stawell, £18,518; Long Tunnel Extended, Walhalla, £17,040; New Red White and Blue Consolidated, Bendigo, £16,875; North Duke, Timor, £16,250; Windmill Hill, Bendigo, £15,935; New Moon, Bendigo, £11,700; New Loch Fyne, Matlock, £11,100.

No great importance should be attached to the aggregate amount of dividends paid by each mining district, as no comparison can be made in the absence of the amounts of invested capital.

For instance, it will be observed the Walhalla Long Tunnel paid nearly half the total amount paid by Gippsland, which is only exceeded by three other districts—viz., Bendigo, Ballarat, and Beechworth. The figures only show the amounts paid to registered companies, for obviously no account can be taken of the earnings of co-operative parties and individual miners. It may happen—indeed it is not at all improbable—that a district which pays companies only trifling dividends may give a lucrative return to small parties, and as a case in point, the Queenstown and Upper Yarrow district, the Mount Elliot and Eskdale fields, in the Upper Murray country, may be quoted. The gold yield of a district is the true test; time alone is the philosopher. At the rate Gippsland is being opened up the *raison d'être* so necessary to make clear now will in a few years hence have passed away. Of course, it is necessary to remember that in accordance with the mining laws of the colony parties working miners' right claimants are not compelled to furnish a statement of gold won. Such being the case, districts like Yackandandah, where the Hon. J. A. Wallace has hundreds of acres taken up under miners' rights, and working four of the largest dredging plants in Australia on Staghorn and Rowdy flats, and McCombes, where every square yard has been tested and known to yield from 1000 to 1500 ounces to the acre, are retarded by the secrecy permitted in regard to proprietary concerns.

If registered companies are compelled to furnish quarterly statements there can be no excuse for exempting individuals. The colony is the sufferer by this unwise system, and in the New Mining Bill the Minister should insert a clause compelling banks within the colony to furnish a statement of gold purchased, and the district it came from. On the principle that nothing succeeds like success, Yackandandah through lack of gold returns is fast becoming a neglected field. I have some startling information before me as to the methods adopted of discouraging English capitalists from paying attention to the rich resources of this locality, and will deal with the matter in a future article.

Some interesting facts are given in the report regarding the deep mines of the colony; nine were over 2500 feet deep at Bendigo, and four were over 2900 feet in depth, the deepest being Lensell's 180 Mine, 3302 feet, and the Lazarus Company 3024 feet, the former being the greatest depth yet reached in any mine in the colony. The following were the deepest mines on the other gold fields in Victoria:—

	Feet.
Magnolia-cum-Moonlight, Stawell	2,409
South Star, Ballarat	2,030
Homeward Bound, Beechworth	800
Great Southern, Rutherford	322
Welcome, Alexandra	730
Hope, Wood's Point	530
Ajax, Castlemaine	1,116
North Cornish, Daylesford	990
Derby United, Maldon	1,350
North Long Tunnel, Walhalla	1,936
New Blucher's Reef, Maryborough	786
Lord Nelson, St. Arnaud	1,220

While there is no account given of the number of mines in operation, nor the number of claims pegged out during the year, some idea may be arrived at by the statement made by Mr. James Stirling, Assistant Government Geologist, that up to the present 3179 lines of reef had been proved. The list of localities in which there was a general revival and important discoveries includes Rokewood, Pitfield Plains, Mount Elliott, Omeo, Dargo High Plains, the Bemm River, Bawang, the Snowy, Walhalla, Matlock, Woods Point, and the Upper Yarrow. The prospecting carried on in the latter area will be found to have an important bearing on future mining operations of the colony, for since the publication of the report an auriferous sandstone mountain has been discovered, now called the Victorian Mount Morgan, thus adding a practically new gold field of considerable promise. With the singular exception, Steiglitz was the only district on a rapid down grade, and continues to this hour "unheard and unsung" in public favour. The "fizzing" out of the New Mariners, the mishap by fire of the United Albions, the diminishing yields from the Alliance and the Waterloo, and, above all, the flotation at home of the Ballarat (Steiglitz district) Gold Mines (Limited), which has met with disfavour and condemnation from all quarters, has sunk that once popular and still rich district to zero. Reference is made to the introduction of English capital to assist in developing known auriferous leads and lodes, and to the efforts of the department to prevent worthless mining properties being foisted on English capitalists.

In touching on this point, Mr. Travis writes:—“Carefully prepared reports, accompanied by the necessary plans, giving full and reliable information in regard to the proved auriferous leads and lodes of the colony have been sent home at regular intervals to the Agent-General in London to be made available to the investing public.” In spite of captious critics who snarl at the Mines Department, it can safely be said that it does all in its power to make known the colony's resources in England, and to check unscrupulous promoters who endeavour to place upon the London market mining properties of little or no promise. The rapid survey plan has been a great help in this object. The English public are to blame if they do not make a full use of the Agent-General's office to verify promoters' statements and to obtain authentic information as to the character of certain of our auriferous areas. The Minister, Mr. H. Foster, is to be congratulated on the year's result and on the fact that his department is daily growing in importance. The compilation of the report has become a technical publication of very high order, packed with a mass of information that should prove most useful in every branch of the mining industry. It is a valuable work of reference, and reflects great credit on the various writers, in particular, Mr. Travis, the Secretary, Mr. R. A. F. Murray, the Government Geologist, and Mr. James Stirling, Chief Assistant Geologist.

The OORANG GOLD MINING COMPANY OF INDIA (LIMITED) have sold the gold obtained in August for £19,306 6s. 4d.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE.

NEW ZEALAND MINING.

(FROM OUR OWN CORRESPONDENT.)

THAMES, SEPTEMBER 4.

REAT activity continues to be displayed in mining in all parts of the colony, which is not only due to the substantial increase in our gold output, but the steady influx of British coin for the development of our mines on a systematic basis is, perhaps, the chief cause for the steady interest evinced.

Of course, there are thousands of acres taken up in the various centres, where, perhaps, there will never be a colour of gold found, whereas, on the other hand, in the same centres some really valuable properties exist, and almost in every instance the British capitalist is also involved.

Great caution is being observed regarding properties under option, and in many instances a severe inspection has to be carried out, prior to the final settlement of the whole business. Regarding the flotation, this is, I consider, a very wise course to pursue. It not only serves to prove if the property is worth taking up, but it also goes to show that the vendor is not anxious to saddle the investor with a valueless article, and by a continuance of this system no doubt some good will result. On the other hand, these developments may cease just at the very time that they should have been carried on to a further stage, for gold does not exist at any point of contact, and it is quite possible that the developments may have been carried on just where the ore body becomes good, resulting in the abandonment of negotiations.

However, development work on the option system is being conducted in mines all over this peninsula, and under the supervision of very able engineers, so that those who are putting their money in many depend upon it that they will receive justice.

In the Coromandel district there is really nothing of importance to chronicle outside of the Hauraki Company's property. A block of specimen ore from the lowest point of development in this mine is being forwarded to England. This specimen is estimated to contain £300 worth of gold, and the importance of it is that it shows that the lode is rich at the deeper levels, and gives great promise of a continuance of the satisfactory returns which have been obtained from the commencement. Outside of this mine steady exploiting is being conducted, but so far with but poor results.

In the Thames Proper there is nothing new to report.

The Thames Hauraki Company are pushing on with their shaft, and the same remark applies to the Monatai Gold and Kurunui-Caledonian Companies. In the former the extension of the main adit level has been commenced. The shaft has reached a depth of 350 feet, and the whole of the development is proceeding satisfactorily.

In the Ohinemuri district the New Zealand Crown Mines Company have started their additional 20 stamps, and every provision has been made for a further increase if necessary.

New Find.

I visited a new discovery in the Rotokuhu district.

The discovery was made in a special claim, showing on the gold fields plan as the Princess May.

This property is situated at the end of a range of hills leading south from the Karangahake district, and is on a direct line to embrace the south continuation of the Karangahake system of lodes.

The formation unearthed is composed of numerous small veins of quartz of the segregated class, intermixed with the country, both country and quartz shows gold, and yields assay results from £30 to £190 per ton.

In my opinion, this bed or formation is the one that shed the whole of the loose alluvial gold into the Rotokuhu Valley, but whether it will continue at depth remains for further development to reveal.

Regarding the Waihi district, the old mine the Waihi Company are steadily working, there is a steady supply of general milling ore coming to hand, with every indication of a continuance for many years to come.

The Waihi Consolidated Company are passing through a splendid channel of decomposed andesite with their main shaft. The machinery is working smoothly, and the development is proceeding satisfactorily.

The Waihi Silverton have discovered another lode, worth £4 per ton. Whether it will average that remains to be seen.

There is nothing startling from Waitekauri. The big company are now in a fair way to commence treating their ores in their new mill.

Whangamata district is quiet at present, owing to the very wet weather. There is, however, a large amount of option development going on.

At Taupo the Broken Hills reef has been opened up 20 feet below the works opened near the surface. Here the ore body proves to be defined, and fully 11 feet have been cut into it, and still no sign of the hanging wall; 3 feet of the hanging wall portion assays show it to be worth £600 per ton. The whole of the 11 feet of ore so far opened proves to be worth about £100 per ton.

Whether this phenomenal richness will continue remains for development to reveal.

A company has been formed to take over this property, but notwithstanding its richness, and the lode proved strong, masterly, and defined in its downward continuation into the bowels of the earth, I should like to have seen more work done upon it, at a greater depth, before asking the public to subscribe capital for its development. It must be borne in mind that with the developments that have been executed, there is a large show of rich stone, enough, I should imagine, to give good results, and when once the stamps are at work on the output the returns, I fancy, will make itself known to the mining world.

Mr. J. Jenkin Cooper, of Cooper's Exploring Company, returns to England by the outgoing mail boat. He takes with him to place upon the market one of the finest properties in the colony. I refer to the Puru Consolidated Mine, which is now under vigorous development.

The lode has been proved upon the No. 1 level for a length of 250 feet, and now a lower level is in progress upon the same lode, which is also proving to be equally as productive as that met with on the No. 1 level.

Other lodes have been opened, and all carry ore of a payable character.

The property comprises an area of 478 acres of highly auriferous land, with a large stream running right through the property, enough to drive 200 stamps if necessary.

The New Zealand Government have been asked to assist in the construction of a railway from Paeroa into Waihi, but they are not very anxious to comply with the request, owing to the very few claims producing gold returns in the Waihi. If the Government could see their way clear, there is no doubt they would willingly comply, but I am of the opinion they will wait for further developments in some of the mines.

Gold Returns.

Kurunui-Caledonian (Thames proper) crushed 55 loads of quartz, yield 186 ounces 10 dwts. melted gold, value £508 19s. 9d.

Occidental Gold Mining Company (Thames) crushed 24 loads, 60 ounces 17 dwts., value £168 18s. 1d.

Victoria Gold Mining Company (Thames) crushed 110 loads quartz and 40 lbs. picked stone, yield 243 ounces 14 dwts., value £689 9s. 6d.

Waihi Gold Mining Company, 2900 tons, yield £2800. £1000 worth of bullion retained in the new zinc to charge it. The return is practically £9800.

New Zealand Crown Mines, 1097 ounces (no tonnage given), value £1866.

Waihi Silverton, 800 tons produced £1400 bullion.

Waitekauri Gold Mining Company crushed 144 tons, value £585.

Huraki, 330 tons, yield 2134 ounces, value £6402.

Kapai Vermont (Kuauotunu) crushed 235 loads for a yield of 251 ounces, valued about £550.

MINING IN THE UNITED STATES.

(FROM OUR OWN CORRESPONDENT.)

NEW YORK CITY, SEPTEMBER 29.

THE end of the Leadville strike has come sooner than any of us expected. The men committed the error of resorting to crime in a form that alienated all public sympathy. The “fire laddies” of the United States are popular favourites. Their practical utility, their record-breaking speed of action, their many gallant exploits, and last, though by no means least, their frequent parades and careful catering to the inborn American love of publicity have long endeared them to us all. When, therefore, it became known that the Leadville strikers had shot a “fire laddie” while engaged in extinguishing a fire, a general cry of disgust and resentment was heard throughout the land. The leaders of the men were wise enough to call a halt. The strikers have offered to go to work at the old rate of wages, and Leadville may now reasonably expect a resumption of activity and profit.

Inasmuch as a good many American mining enterprises are being put in shape for the British public, I think a few words of caution may not prove amiss. I refer more particularly to the care that should be taken in estimating the real value of companies formed for driving tunnels in mining districts. The statements made in the prospectuses of such companies should not be implicitly relied upon, even when the names of respectable men of business and lawyers figure on the list of directors. A very foggy state of things prevails. People who ought to know don't seem to know, and the public at large is supplied with some very erroneous guidance. The stock exertions made are to the effect that, by Federal law, any person may commence a tunnel on unoccupied ground, and thereby acquires the right of ownership of all veins cut in driving the tunnel for a distance of 3000 feet from its commencement. This ownership is asserted to over-ride the rights of all locators at surface, and to extend for 1500 feet on each side of the tunnel, as well as from the apex of each vein to as far as it may extend in depth. The usual way of stating these claims is well exemplified in a prospectus of a concern called the King Solomon Tunnel and Gold Mining Company of Colorado, which contains a remarkable report from a “Professor,” who thus expresses himself:—

“Under the most recent construction of the law governing tunnel locations the company owning the King Solomon Tunnel has acquired 3000 feet square of comparatively virgin ground in the geological centre of that which is now conceded to be the largest and richest gold-bearing area as yet discovered on the globe. From its entrance to its terminal this tunnel will pass through eruptive rock peculiar to the Cripple Creek district, and will at a maximum depth of 500 feet cut almost at right angles a zone of mineral-bearing fissures, from which gold is now being produced to the amount of \$1,000,000 per month at a less cost per ounce than it is or has ever been produced from other quartz veins in any part of the civilised world. On this line, crossed by the King Solomon Tunnel, there was but one producing mine in the summer of 1892; now nearly one-half of the 163 shipping mines of the district are ranged along its surface, and yet less than one-fourth of that surface has been intelligently and systematically explored. In my judgment finite minds cannot estimate the possibilities of that particular section of this wonderful district.”

In the body of the prospectus containing the report from which I have quoted there appears the following additional statement:—

“Under the mining laws of the United States Government, the owners of a tunnel site are entitled to these rights and privileges:—To compensation for draining existing mines located on the line of the tunnel; to royalties for the use of the tunnel as an avenue for the conveyance to the surface of ores from the deep levels of existing mines; to 1500 continuous feet in any direction along the course of any and all veins of ore discovered and cut by the tunnel in its progress; and to 1500 continuous feet in any direction along the course of any and all veins cut by the tunnel that may be discovered by other parties after the date of the location of such tunnel.” This statement was apparently entitled to popular credence, because the document in which it was set forth was issued by persons of good business reputation and legal standing. The prospectus was circulated by the well-known house of Bigelow and Co., of Boston. The company's lawyers were an eminent Boston firm, whose senior partner was a director and the treasurer of the organisation.

The capital was fixed at 2,000,000 shares of \$1 each: 17-20ths went to the promoters and 300,000 were assigned to the Treasury, and, to quote the words of the prospectus, were “now offered at a very low price for a limited period.” The “low price” was 15 cents per share, and at this figure the public invested to some small extent. Presently the want of working funds was felt, and an application was made to a New York firm to advance the required money. Then, for the first time, was an investigation made as to the truth and accuracy of the statements in the prospectus. The firm applied to happen to be mining experts and well acquainted with mining law, instead of having financial knowledge only. They at once challenged the assertions of the “Professor” and the alleged legal status of the enterprise. They were assured by the director who was negotiating the advance that the eminent Boston lawyers would vindicate the prospectus and dispose of their objections. An attempt to do this was made by the lawyers in question, who sent a lengthy letter, bristling with legal terms, but the financiers immediately proceeded to vivisect the lawyers with the result that the loan was not granted.

The real state of the law is very different from that asserted by the King Solomon Company. Anyone is at liberty to commence a tunnel on unappropriated mineral land belonging to the United States. He may drive the tunnel to a distance of 3000 feet, and if in so doing he cut any vein “not previously known to exist,” and not apexing within the limits of surface

locations made prior to the location of the tunnel site, he has the right to 1500 linear feet of such vein as fully as though the discovery had been made in the ordinary way from surface. The 1500 feet in question may be measured partly on one side and partly on the other side of the line or axis of the tunnel, or it may be taken wholly on one side. The tunnel must, however, be continuously prosecuted "with reasonable diligence," and a failure to do work for a period of six months is "considered as an abandonment of the right to all undiscovered veins on the line of such tunnel." There is thus no proprietorship of an area of 3000 feet square. There is no right to compensation for drainage, or to royalties for conveyance of ores. In order to determine whether any tunnel company has a valuable undertaking it is necessary to know very much more than is set forth in any prospectus I have yet seen. First, the date of location must be ascertained. Secondly, the history of the work must show that at no time has a six month's suspension taken place. Thirdly, the dates, boundaries and developments of all surface locations along the line of the tunnel and for 1500 feet on each side of such line must be looked into. These data, when pieced and fitted together, will show to what extent the tunnel proprietors will benefit by any veins met with in the course of their work. In many cases it will be found that no rights of any value exist; especially where, as in the case of the King Solomon tunnel, the ground to be opened up is occupied by a number of established and well developed mines.

I have made a somewhat long (but by no means exhaustive) story of this, because it is to the interest of mining in general, and American mining in particular, that investors shall be duly warned of pitfalls into which they may otherwise easily stumble. The warning is all the more important at the present time, as attempts are being made to induce English investors to purchase stocks in American mining tunnel companies which, although in highly respectable hands, so far as business standing goes, are yet devoid of intrinsic value owing to their legal status being defective. I understand, for example, that the Bull Hill Gold Tunnel Company, with a capital of 2,500,000 shares of £1 each, is now, or will shortly become, a vigorous applicant for your cash. This concern is controlled by some of the leading officials and members of the Denver Mining Exchange, and for general respectability leaves nothing to be desired. Its tunnel is admirably located, and will entirely traverse Bull Hill, which, as most mining experts know, is next, perhaps, to Battle Mountain, the richest section of the Cripple Creek district. Its prospectus says:—

"It was not expected to reach any mineral under 700 or 800 feet, but a vein has quite recently been cut, which is being followed, and gives promise of value, and which it is believed will soon lead to a valuable ore chute. The next 800 feet will pass through one of the most valuable mineral tracts ever known to exist. The Pikes' Peak vein has already produced over \$400,000. The Mineral Rock vein is shipping high grade ore. The John A. Logan and the American Eagle, owned by W. S. Stratton, which has developed into a great mine, both pass through our territory. It also crosses and cuts such known veins as the Pharmacist, Zenobia, Barnes, Ida Bell, Tommy Crouse, Garfield, Orpha May, Favourite, Pattie O, Kalamazoo, New Zealand, Buena Vista, Emma, Jack Rabbit, Anna Brett, Ramona, Silver Tip, Londonerry, Mollie Maguire, Climax, Bertha, Whale, Henry Coby, Star of Bethlehem, Hidden Treasure, How, Wild Horse, and many others. In everyone of these properties the ore has been found to be of greater value with increased depth. What will be the result when these veins are uncovered in the tunnel at the depth of 800 to 1000 feet? The ore of this hill is mostly of a very high grade, running from \$30 to \$100 per ton. It is claimed that no less than about 40 veins cross Bull Hill north and south, all opened up within the last 30 months. This company will own 1500 feet of every vein so found, and which it will cut in its tunnel, with the exception of two or three which were prior locations. From this it will be seen that if this company, in driving its tunnel 3000 feet, shall cut or cross 30 veins it will own 1500 feet of each and every one of them, or, in other words, own 30 developed mines. It will be seen that this company is not engaged in an experiment, but is simply developing a property of great value."

If these statements be accurate, the shares of the Bull Hill Gold Tunnel Company are enormously valuable, and instead of being paddled about, as is now the case, at from 2 to 3 cents, they should command at least an equal number of dollars. If, too, the statements be accurate, what will become of the numerous companies now at work on Bull Hill? They will all have to render an account to the Tunnel Company for the ore they have respectively shipped from the numerous veins referred to in the prospectus. But in reality no such peril is in store for them. The rights of a tunnel proprietor, as against surface locators, are to veins "not previously known to exist" and "not appearing at surface." All, therefore, that the Bull Hill Gold Tunnel Company can legally acquire by its enterprise will be 1500 feet of any *blind vein* that it may chance to cut in ground not occupied by some senior surface locator.

It will be seen, therefore, that the claims set forth in the prospectus are incorrect; and it is to be hoped that none of your brokers will be misled into selling the stock to English investors on any such basis.

I hope I have made it clear that my criticisms are not intended to cast any aspersion upon the perfect good faith of the King Solomon and Bull Hill Companies and similar undertakings. The character of the parties concerned and their own contributions to the funds of the companies preclude any idea of their representations and intentions being otherwise than honest. Their error lies in a want of due investigation.

BELGIAN COAL PRODUCTION.—The British Consul at Antwerp states that the production of coal in Belgium during 1895 amounted to 20,414,849 tons against 20,544,421 tons in 1894. The exportation during 1895 was as follows:—Coal, 4,616,980 tons; briquettes, 460,313 tons; coke, 869,400 tons. The shipments into the United Kingdom were 73,765 tons of coal, and 16,403 tons of briquettes. The British Vice-Consul at Ghent remarks that the importation of coal from the British Isles continues on a large scale. Thus in 1893 the yearly return showed 110,000 tons, and in 1894 it amounted to 143,000 tons, and was 131,000 tons in 1895. The greater part of this coal comes from Goole and Newcastle-on-Tyne, and is carried at very low freights by the regular lines trading with Ghent. The consular report states that without such facilities it would be difficult for British mining companies to compete with the Mons and Charleroi coal, which is extensively used, as is also that from Germany. The large factories of all kinds for which Ghent is famous constitute an active coal market in which neither British, Belgian, nor German coal secures a monopoly.

NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS.—A general meeting of the members of this institute will be held this afternoon at Newcastle-upon-Tyne, when the following papers will be open for discussion:—"The Blasting Efficiency of Explosives," by Bergassessor Winkhaus, "Safety Explosives," by Bergassessor Winkhaus, "Photography in the Technology of Explosives," by Mr. Alfred Siersch. The following papers will, also be read:—"Notes on the Venterkroon Gold Fields, South African Republic," by Mr. H. B. Bunkell, "A Spring Coupling for Winding or Haulage Ropes," by Mr. H. W. Hollis, "The Danger of Employing Safety Fuses for Blasting in Fiery Mines," by Bergassessor Winkhaus.

MEETINGS OF MINING COMPANIES.

LA YESCA GOLD AND SILVER MINES, LIMITED.

THE ordinary general meeting of shareholders in the La Yesca Gold and Silver Mines (Limited) was held on Tuesday, at Winchester House, the chair being occupied by Mr. GEORGE WILLS.

The SECRETARY (Mr. S. Banning) read the notice convening the meeting.

The CHAIRMAN said: Ladies and Gentlemen—I presume you will take the report and balance-sheet, which you have before you, as read. You will notice that the whole of the capital of the company has been issued. You were given to understand at the last meeting that the capital at our disposal would, in all probability, be sufficient to put the mines on a paying basis. Why this was not the case I shall endeavour to explain presently. The item in the balance-sheet "proceeds of bullion sold," amounting to £1080 11s., covers a period of about 12 months. You were informed at the last meeting that Mr. Arthur L. Pearce had been appointed consulting engineer to the company. His advice and assistance have been of great value. He visited the property at La Yesca last year, and the substance of his report was duly issued. Having found that the work was being carried on almost entirely under the supervision of Mr. A. F. Miller, the assistant manager, owing to the general manager being incapacitated by ill-health, Mr. Pearce thought it desirable to appoint Mr. Miller as general manager. Unfortunately, the heavy rains had caused the lower workings of the Padilla Mine (formerly called "Ziopan") to be filled with water about two weeks previously to Mr. Pearce's visit. However, as far as possible, he thoroughly examined this mine, and his conclusions were such that the directors thought it well worth while to open up the lower workings below the water level. The manager obtained a hand pump, &c., from Guadalajara, and succeeded in clearing the mine. Considerable work has been done, and from various points ore has been extracted, but we have not gone deep enough to reach the solid ore bodies below the old workings. Mr. Pearce said of this mine:—"From its power, and the high grade nature of its ore, it presents a proposition well worth considering, and will, no doubt, justify the investment of a further sufficient amount of money to open it up in depth, and work it on an adequate scale." It has been a great disappointment to us that, although energetic work has been carried on, we have not as yet succeeded in getting into the more solid ground below the old workings. We fully expected this mine to produce a large quantity of pay ore from the beginning of this year. In consequence of the long delay and somewhat unsatisfactory reports from the manager, we, in consultation with Mr. Pearce, decided to request Mr. A. C. Young, an expert well known to Mr. Pearce, who was in Mexico, to go to La Yesca, and inform the board very fully on all points. His report, in the first place, I am glad to say, fully confirms the good opinion we had of our present manager. He says—"I consider his knowledge of the country, its people and the language, to be of great service to you, and I further consider he is thoroughly honest." Mr. Young states that he considers the property one of the best prospects he has ever seen in the country. This is an important expression of opinion, as Mr. Young's experience of Mexico extends over a period of 10 years. He points out, however, that further development is necessary. He says that the workings, from which the manager obtained the ore which has been crushed, were incapable of giving a sufficient supply to keep the mill constantly running. The directors, therefore, stopped all work here until they had discussed with Mr. Pearce the future working of this section of the property. Mr. Young advises that a tunnel should be driven below the old workings about 55 metres in length, at a depth of about 50 metres from the present workings, and adds: "Taking into consideration the enormous width and strength of the lode, and seeing that the ore, in your present mine, although bony, appears to be improving in depth, I think the chances are with a depth of 50 metres more, there is every probability you will cut the lode where the metals exist more compactly." We should also by this means drain the mine. Mr. Young continues: "Your extraction charges would be considerably reduced, and you would also have proved a lode not only at 50 metres greater depth, but also at a distance of about 450 metres from your present workings." I regret that Mr. Pearce has at the last moment found it impossible to be present. He is, however, quite in accord with Mr. Young on this subject. The directors purchased a Hornsby oil engine and pump, with all the latest improvements, which has been sent to the mine and can be utilised in due course. We expected that long ere this the manager would have reported some discovery at the San Miguel Mine. The drivage on the crosscuts in the tunnel has been continued as Mr. Young advised. He says that the old workings above have been enormous, and from the character of the rock and the dumps, and the small stones which can be found in the dump, containing specks of metal, he is confident that large quantities of very rich metal have been extracted at this point. The manager's latest reports are as follows:—Cable August 22:—"San Miguel. A streak of ore gives an average assay of 13 dwts. gold and 160 ounces silver per ton." Cable September 13:—"Crosscut No. 2. There is a streak of ore that assays 17 dwts. gold and 130 to 140 ounces silver per ton; width not yet determined." Letter dated September 9:—"Vein crosscut No. 1 is coming into ore again. Vein crosscut No. 2 is 8 to 10 feet wide. The first 2 feet give scattered bunches, assaying 68 ounces silver; the 2 to 3 feet on hanging wall give bunches assaying 135 ounces silver, and 17 dwts. gold. The intervening space also has these bunches, but they appear mostly on the hanging and footwall. The whole vein is a broken quartz, the massive bunches being ore and the rest barren. These bunches are mostly on the northerly side of the crosscuts, the southerly side in both No. 1 and 2 veins being barren. This fact confirms an idea I have formed that the north and south vein was broken up at the intersection of the east and west vein. The former does not appear in the Arroyo, as it should do if not interrupted. I look for a solidifying of the veins as we drive north." Mr. Pearce states that the outlook is sufficiently good to justify the continuation of the work, but it is for you, ladies and gentlemen, to consider whether you will continue. At a conference we had with some large shareholders, the proposal of which you have had notice was unanimously approved. It quite depends on the support you give, and the terms we can arrange with the vendor, whether we proceed with the issue, and thus be in a position to carry on the work recommended both by Mr. Young and Mr. Pearce. We have done our best to make the company a success, but as you are well aware, in the opening up and development of a mine there are always delays and unexpected difficulties; and the circumstances which have arisen have been beyond our control. We are still amongst the largest shareholders—I may say we are the largest shareholders—and have spared no time or trouble in conducting the business. We have taken no fees since March, 1895, and have given up our claims for the amounts due. We do not hesitate to place ourselves unreservedly in your hands, as we feel assured there is every reasonable hope of ultimate success. I now beg to move the adoption of the report and balance-sheet.

Mr. FREDERICK MAJON seconded the motion.

The SECRETARY, in answer to questions, said that the rate of interest payable to Mr. Padilla was 6 per cent., and as to his rights of foreclosure, the only thing was that if the company made any default the original deed came into effect, but he might say that they were now negotiating with Mr. Padilla with a view to obtaining some modification of his rights, and unless they did get a reasonable concession from him it was not intended to issue the new capital at all. If the new scheme was not carried out the company must go into liquidation.

Mr. MAJON, in reply to a SHAREHOLDER, said it would be very difficult to reconstruct the company on account of Mr. Padilla's interests. It was true there had been two or three reconstructions already, but not under the present directorate.

A SHAREHOLDER asked if the board had received any premium for the subscription of the new capital.

The SECRETARY said they had no written promises; but he had seen a large number of shareholders, and they all thought the scheme was a wise one, and, to a great extent, they would come in and take their proportion of the new shares.

In answer to another question as to how long it was expected the new capital would last, the CHAIRMAN said the work of development had already advanced to a certain point, and at any time they might, in the San Miguel, come upon very good ore. This opinion was confirmed by a letter which they had that day received from Mr. Pearce, and Mr. Young was also in accord with Mr. Pearce as to the value of the mine. All the expert opinion was, therefore, to the effect that all that was wanted was a little more capital. The question for the shareholders to decide was whether they would take the sponge just when they were about to get something out of the mine, or whether they would adopt the suggestion offered to them, and furnish more capital to bring the venture to a profitable issue.

The resolution was then put and carried *en cons.*

The retiring directors, Mr. A. Wills and Mr. F. Major, were re-elected, and with the concurrence of the directors Messrs. Upde-

rron, Green, Watson, and Zucconi were appointed a committee to consider with the board. The auditors were also re-elected.

SPECIAL MEETING.

An extraordinary general meeting was then held, at which the following resolutions were passed:—(1) "That the capital of the company be increased to £210,000 by the creation of 40,000 shares of 5s. each." (2) "That such shares shall be called new shares, and shall entitle the holders thereof to the profits of the company preferentially until dividends equal in the whole to 5s. per share on the new shares shall have been paid; and after such sum of 5s. has been paid in dividends on each new share, then the new shares shall rank equally for dividend *pari passu* with the ordinary £1 share." (3) "That such new shares shall, in the first instance, be offered to the present holders *pro rata* as nearly as possible." (4) "That such new shares as may not be taken by the members may be disposed of on such terms as the directors may determine." The proceedings terminated with a vote of thanks to the Chairman.

HANNAN'S TREASURE TROVE, LIMITED.

The first ordinary general (statutory) meeting of the shareholders in Hannan's Treasure Trove (Limited) was held on Monday, at Winchester House, Old Broad-street, under the presidency of Mr. CHARLES CLARK.

The SECRETARY (Mr. Fred Moore) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—This is, as you are aware, the statutory meeting of the company, held in accordance with the provisions of the Joint-Stock Companies Act, and your directors are glad to have the opportunity of meeting you, although they have little to communicate beyond that which has been already made known to you by circular. Our properties are located in the south-eastern portion of the Great Kalgoorlie gold belt, in the neighbourhood of the Lake View East, the Adelaide, the Slug Hill, and other well-known mines, on a direct line with the celebrated Brownhill lode, through the Royal Mint Mine, and parallel with the course of the Great Boulder lode. They were already registered in the name of the company's representative in West Australia when the prospectus was issued, and they have since been duly and definitely transferred into the name of the company itself. Your directors consider that they have been fortunate in securing the services, as local superintendent, of Mr. H. W. Taylor, a gentleman of large and matured experience, whose personal acquaintance they were glad to make in London, and in whom they feel that full confidence can be reposed. The development of the property is proceeding satisfactorily. There were originally, as you will remember, two prospecting shafts on the mine, 254 feet apart, by means of which the lode had been proved and the underlie approximately gauged. Our agents accordingly began their development work by putting down two new shafts on Southern Block, lease 1203, viz.: No. 1 intended to catch the main lode at about 150 feet, and No. 2 intended to test the other lode, running parallel to the main lode. Shaft No. 3 was soon afterwards started on the Northern Block, lease 1643, with the object of catching a lode discovered in an adjacent lease—Royal Mint East. This shaft will in future be known as shaft A, while No. 3 will be another new shaft now sinking to the east of No. 2. In regard to these three shafts Mr. Taylor writes as follows on August 26:—"I have called for tenders for sinking a third shaft at a distance of 200 feet east of No. 2. This shaft I shall call No. 3 in future. On reference to the plan you will perceive that these three shafts are placed so that when connected by drives at the 100 feet level, and drives also run out from No. 1 to the western and from No. 3 to the eastern boundary, the whole width of the property will be crosscut at that depth, showing what we really have on this portion of the property." Shaft No. 1 is now 118 feet deep, and is closely timbered throughout. A fine body of ore was struck in the course of the sinking, every trial of which by pan assay gave a trace of gold. A crosscut driven from the 100 feet level in this shaft has gone through the lode, and it is our intention to carry out the scheme suggested in the letter by opening out the ground at that direction, and then to crosscut right through that part of the property. We have also begun to crosscut in No. 2 shaft at the 61 feet level as well as at a point in A shaft, and altogether some 300 feet of crosscutting has been done up to the present time, and we are continuing it as speedily as possible above the water level. We are also engaged actively in surface work, and particularly in preparing for the erection of pumping and hoisting machinery to deal with the remarkable inflow of water which has taken place in the mist, equal to more than 7000 gallons in the 24 hours. This water will, no doubt, speedily become a source of revenue, for we have been already approached on behalf of neighbouring mines, who are offering to purchase as much as we can spare. The machinery is now in transit by the railway, and altogether I think you will agree that our position and prospects are satisfactory. There seems to be no doubt that a large body of ore was struck in the A shaft before the influx of water occurred. We have also proved two lodes in addition to those mentioned in the prospectus, the width of which is stated to be 10 feet in one case, and 12 feet in the other. The width of the original lodes has not yet been mentioned. Two of the reefs are reported and believed to be the Brownhill and the Royal Mint lodes. A good deal of local interest has been shown with regard to the progress and prospects of the mine, and I have no doubt we shall find there are dealings in shares as soon as the people locally have been in a position to obtain delivery of the certificates and transfers. I do not know that there is anything else I need say to you except to read the mine manager's report which arrived this morning; it is dated August 29:—"During the past week work has been confined principally to surface; four men engaged building office and blacksmith's shop, which are now completed; three men cutting mine timber, and clearing site for new shaft, which will be known as No. 3; the position of shaft 250 feet east of No. 2 and 130 feet west of east boundary; tenders have been called and accepted for sinking shaft 100 feet from surface; contractors start work Monday." If any gentleman has any questions he would like to ask, I shall be very happy to answer them. There being no questions, a vote of thanks to the Chairman terminated the proceedings.

THE MINERAL RESOURCES OF GREECE.—It is stated that English capitalists are beginning to pay attention to the mineral resources of Greece, and several applications with a view to concessions have lately been received by the Greek Government. From Athens it is stated that two mining engineers, representing an important English company, have lately arrived there with the object of securing a concession for an iron mine.

GOLDEN LINK GOLD MINING CO. LTD.

An extraordinary general meeting of the shareholders in the Golden Link Gold Mining Co. Ltd was held on Monday at the Cannon Street Hotel, Mr. ROBERT WALKER, J.P., presiding, for the purpose of considering a proposal to amalgamate with certain other gold mining companies owning properties in the Hannan's District, W.A.

The SECRETARY (Mr. W. Cooper) read the notice convening the meeting.

The CHAIRMAN said: As you are aware, this meeting is called for a special purpose—namely, to consider an agreement by which our own Company and three other companies on the same field are to be amalgamated. The matter will be fully explained, and the various legal points dealt with by Mr. Bilbrough, our solicitor, who can do that a great deal better than I can. I may say, however, that it is intended to form a company, called the Golden Link Consolidated Gold Mines, Limited, with a capital of £50,000, and the amalgamation is upon certain terms, which we think favourable. I may add that our directors are unanimous in the opinion that if you confirm the agreement which has been provisionally entered into, it will be to the interest of the shareholders. Before proposing the resolution I will call upon the solicitor to explain the whole intention of this amalgamation, or you may call it the absorption by this new company of the four companies.

Mr. SCOTT-LINGS thought it would be convenient for him to give the explanation to which every shareholder in the company was entitled. He rose as the representative of a very large body of shareholders, and spoke with the authority of the holders of some 50,000 shares. His name might be familiar to those present as one of the signatories to a circular sent out some little time ago, and signed also by Messrs. Stoneham & Messenger and Messrs. Woollner & Co., the considerations which led to the sending out of which he would proceed to explain. His desire was to be perfectly frank with the shareholders, and also perfectly fair with the directors, and he would remind the meeting that destructive criticism was the easiest thing in the world and also the most futile, and that when they were finding fault with anyone who had their affairs in hand, the finding of that fault or any consideration arising therefrom came with very much greater force if they were prepared to set before the governing body some definite scheme which they considered should be carried out. In order to make himself clear he needed to be somewhat retrospective. As appeared from the newspapers, it was evident there had been a certain amount of dissatisfaction on the part of the shareholders with the management of the Golden Link Company. He was a large shareholder, and to some extent shared that dissatisfaction, the outcome of which was an endeavour on his part to put himself in communication with some of the large shareholders. He saw Messrs. Stoneham & Messenger and Messrs. Woollner & Co., and suggested that before taking any steps to induce the directors to call the company together they should formulate, if possible, some scheme which would, in their opinion, be for the benefit of the shareholders. The outcome of those deliberations had been the elaboration of the scheme which was embodied in the contract to be submitted to the present meeting. Now, admitting that the directors were not showing the amount of enterprise which he would wish to see, they must bear in mind that the company was primarily constituted as a mining company, and not as an exploration company, and it was quite possible that the directors felt themselves to a great extent hampered by their articles of association. Taking this view, he and the gentlemen whose names he had mentioned, felt that they should endeavour to put the company on a broader basis. They knew the company had a considerable amount of capital in hand, that its holding of land had been considerably reduced by the formation of subsidiary companies, and that it was left with 29 acres and the capital referred to. At that time he was chairman of the Eclipse Gold Mining Company, and although a large shareholder in that undertaking, his interest in the Golden Link Co. was very much larger, and so far as he knew neither Messrs. Stoneham and Messenger or Messrs. Woollner & Co. had any holding whatever in the Eclipse Mine. The same remark applied to the Hesperus Company, of which also he was chairman, but in which his pecuniary interest was purely nominal. In debating the question of the future of the Golden Link Company, amalgamation with other companies was suggested, and this ultimately developed into the fusion of the Eclipse, Hesperus and the Great Boulder East Extended. So far as the Eclipse was concerned, that property was an excellent one, and it was sufficiently capitalised in cash to carry on operations. That company was in every sense of the term perfectly able to stand on its own footing and carry out the intentions for which it was originally formed. So far as the Great Boulder East Extended and the Hesperus were concerned, the interests of the Golden Link were already identified to a considerable extent with both of them, inasmuch as the Golden Link held a large block of shares in the Great Boulder East Extended, which was one of their subsidiary companies, and had also subscribed for a considerable block of shares in the Hesperus. It appeared to them that the best method of utilising those shares was to include those companies in the amalgamation upon certain terms, and those terms were, as far as possible, arranged to be fair to all parties concerned, the position of the Golden Link Company being fully recognised, inasmuch as they were considered entitled to receive at a very much higher rate in any new company which might be formed for the purpose of amalgamating these companies than the other companies, and the rates were so fixed that the shareholders in the Golden Link would receive five shares in the new company for every four in the old. The Eclipse Company was to come in at par, but in respect of the vendors' shares, a rebate was to be made of some 4,300 shares from their par value, so that they were to come in at par less that rebate. As far as the Hesperus was concerned, they laid it down as a principle that anybody who had subscribed to that company should receive in full, and that any rebate considered necessary and fair for the inclusion of the Hesperus Company in the amalgamation should be taken from the vendors' holding of shares. So far as the Great Boulder East Extended was concerned, having regard to the large holding which the Golden Link Company had in that undertaking, the basis of calculations was brought down, so that in place of 65,000 shares at present issued to that company, the issue from the new company would be some 31,000. The basis thus arranged was therefore considered equitable for all parties concerned, and was arrived at so as to be acceptable to the Golden Link shareholders who were represented at that conference, and who had no interest whatever in the other companies proposed to be brought in. It was suggested that a new company should be formed, with a nominal capital of £950,000 in £1 shares. The amount required for the inclusion of the four companies would be £269,000, the issued capital of those companies at the present moment being £316,320. They thus had, in the first place, a reduction in the capitalisation of the amalgamated companies of £47,000, which in itself was a step in the right direction. They would acquire 110 acres of land, and the £269,000 mentioned would include the purchase price of the four companies. The new company would receive something over £50,000 in hard cash and machinery, which was already in Australia, of the value of £8,000 or £9,000, so that the actual cash represented by the land would be only a trifle over £200,000, with all the improvements made upon it since the formation of the various companies, and the land would be capitalised at something under £2,000 an acre. The new company would be provided with a working capital sufficient to carry on the development of the most favourable portions of the property, and he could further say that this movement did not constitute the Alpha and Omega of the idea at present in the minds of those who were acting in the matter. They had provided a very large surplus capital, the intention being to incorporate in the new company certain other companies on terms which, at any rate, would not be to the disadvantage of the new company. It would be understood that it would be no easy matter to reconcile the various conflicting interests which had existed amongst these four companies, and he might inform the meeting that, in consultation with Messrs. Stoneham & Messenger and Messrs. Woollner & Co., he had been working very industriously in this business for some months past. The details were, of course, arranged subject to confirmation by the shareholders in the various companies concerned. Now, he desired to be perfectly frank, and to explain clearly his own position. The issue of shares in the new company which would be required to satisfy the payment to the four companies would be £269,000 odd. In the first place, he had undertaken to take up sufficient shares in the new company to bring that amount to £270,000,

to provide the new company with some present cash for immediate requirements; he had also undertaken to pay the cost of formation, subject to the repayment to him of his expenditure within three months. He had come to the conclusion, however, that he would not ask the company to repay that sum in cash, but he would be prepared to take payment in fully-paid shares, and this meant that he would have to take in the new company shares to the value of something over £2,000 straight away. The only consideration he would receive would be that he would acquire a call upon a certain number of shares in the new company at a premium, and unless he could sell those shares above that premium he could not make a single penny out of the transaction, and the significance of that to the shareholders was that the value of their shares in the Golden Link must stand at £1 6s. 3d. per share before he could get any profit whatever. He did not think it was his province to enter into details with reference to the Hesperus and Eclipse Companies. He might say, however, that the Hesperus Company was the proprietor of forty-eight acres in Hannan's district—land which he had every reason to believe was very valuable, because, prior to joining the Board of the Hesperus Company, he received a perfectly independent report upon the property, which was supplemented and supported by the fact that within the last few days overtures had been made to the Hesperus Company by a neighbour who wished to acquire a portion of the land in question, which he did not assume that neighbour would care to do unless some value were attached to the land. With reference to the Eclipse, he could speak with more authority, and would say emphatically that if he had not a single share in that company he would, as a shareholder in the Golden Link, be prepared to accept the proposal to allow the Eclipse to come into the amalgamation. In conclusion, he wished to repeat that the basis upon which the negotiations had been conducted had been one of a desire to be fair and just to all parties concerned; to take no advantage of anyone, but to carry out an arrangement that would be beneficial to the shareholders of all the companies concerned.

The SOLICITOR, replying to several questions asked by Shareholders, said the Golden Link Company had a cash balance of £42,841 at the bank. It had in addition certain shares in the Great Boulder East Extended to the nominal value of £20,000, which, however, were practically unsaleable at the present moment. It had some Chaffers shares, numbering about 10,000, which at the present price were worth £1,750, and it had Hesperus shares to the nominal value of £6,500, which were unsaleable at the present time. The Golden Horse Shoe shares had all been sold, and were represented in the cash balance referred to. The Eclipse Company possessed eighteen acres of land situated close to the Croesus properties at Hannan's. There was on the property what the Manager, Mr. Bowes Scott, described as a very strong lode, and there were two shafts sunk upon it. At the date of the last report which he had seen, the deepest shaft was down 180 feet. The stone during the last 30 feet that had been sunk had been gradually increasing in value, and at 180 ft, showed 12 to 15 dwts. in the pannings. Mr. Scott's intention was to go down 200 ft, and then crosscut into the lode, and no doubt that gentleman fully anticipated that the stone at that point would be well worth crushing. The Eclipse Company had also a cash capital of between £6,000 and £7,000 left, and a complete crushing plant, now at Fremantle, ready to erect, which had cost £7,000, and had been paid for in full. The Hesperus Company had an acreage of forty-eight acres, situated close to the Bendigo mine. The reports made when that company was brought out stated that there was a very strong lode, twenty feet wide, at the bottom of the sixty feet shaft, and an entirely independent report, which was then made, confirmed the previous reports made by Mr. Bowes Scott and another expert. When the property was taken over, Mr. Bowes Scott commenced to work on the reef, which was twenty feet wide, but when they commenced to sink deeper than sixty feet they were flooded with water, and work had been practically at a standstill for the last four months, but winding plant had been sent out to enable them to get rid of the water. In addition to that property, the Hesperus Company had £2,500 in hand, and an unissued capital of nearly £20,000. With regard to the Great Boulder East extended, that property would be brought back for £1,126 more than it was originally sold for, but that £1,126 represented more than one year's development work upon the property. If the new company was formed, as suggested, a very considerable saving would be effected by having unity of management in one Board of Directors and one set of officers; the saving in directors' fees alone would amount to nearly £2,000 a year. It was intended that the new company should be managed by business men, and worked entirely in the interests of the shareholders, and with that object in view the articles provided that the first directors would only hold office until the statutory meeting, when the shareholders would appoint their own directors, and they could choose men in whom they could have full confidence.

After a long discussion the resolution was carried, and the meeting concluded with a vote of thanks to the Chairman.

ECLIPSE GOLD MINING CO. LTD.

AN extraordinary general meeting of the shareholders in the Eclipse Gold Mining Co. Ltd was held, on Monday, at Winchester House, Old Broad Street, E.C., Major-General Tweedie presiding.

The Secretary (Mr. ROBERT WARNER) read the notice convening the meeting.

The CHAIRMAN shortly stated the position of the Company, and explained the proposal which was now made to amalgamate it with some other companies owning properties in the neighbourhood, and then called upon the Solicitor to explain the contract and the details of the amalgamation scheme.

The SOLICITOR said the proposal was to amalgamate the Golden Link, the Great Boulder East Extended, the Eclipse, and the Hesperus Companies. As the shareholders doubtless knew, an amalgamation was carried out in one of two ways—either by the issue of further shares by one of the existing companies or by the formation of a new company to take over the assets of all the old companies. In this instance the latter course had been decided upon, and it was proposed to form the Golden Link Consolidated Gold Mines Limited, with a capital of £50,000, for the purpose of acquiring these properties. One incidental advantage that would be obtained by that process would be that the new company would have the name of the Golden Link, which was well known in the markets, its shares having at one time stood at 45s., not 50s. The immediate result of the amalgamation would be that the new company would acquire 110 acres in the heart of the Hannan's district, upwards of £50,000 in cash, and £8,000 or £9,000 worth of machinery already in Australia. The total number of shares to be issued for the purchase of the four companies now in question was £269,000 odd, which compared favourably with the 316,410 shares forming the present issued capitals of these companies; so that the shareholders would see that an immediate reduction of £47,000 odd was made in the issued capital upon which dividends would be payable. He then proceeded to explain the agreement, going through its various clauses, and, with reference to the 17th clause, he pointed out that the time for completion—October 15—was now very near, and that the directors considered it would be advisable for the meeting to add a rider to the resolution, providing for the sale going through if any two of the companies concurred, whereby, if any delay arose with any of them, it would not necessarily invalidate the transaction, and cause the money expended on working out the scheme and carrying it through to be thrown away.

Mr. SCOTT-LINGS inquired what were the assets of the various companies to be taken over.

The SOLICITOR replied that the assets of this company consisted of between £6,000 and £7,000 in cash, a property of 18 acres, and a complete crushing plant now lying at Fremantle, which has been waiting there for the completion of the railway to Coolgardie in order that it might be sent up to the mine. The assets of the Golden Link Company consisted of £42,800 at the bank and certain shares in the Great Boulder East, the Hesperus, and the Chaffers Companies, in addition to 29 acres of property. With regard to the assets of the Hesperus Company, they consisted of 49 acres, which had been extremely well reported upon, and within the last fortnight an inquiry had come in from the adjoining owners to know whether the company would sell a portion of this land to them, the inference being that they had ascertained that their lode ran into it. This property was not only

well reported upon before the company was brought out, but another company, which was at that time considering its purchase, had an independent report made, which entirely confirmed the other reports. The Hesperus property, however, unlike most of the properties at Hannan's, was one in which a great deal of water was found, and the result had been that the shafts had been flooded, and the work had been practically at a standstill for the last three months. The managers had cabled over in May last for an engine and winding plant to get rid of the water, and it had been dispatched to them at once, and was now on its way to the mine for immediate erection. With regard to the Great Boulder East, as he did not act for that company he was unable to give full details; but he could say that the price to be paid for it, upon the figures represented to the promoters of the new company, was only some £1,126 more than the Golden Link Company had sold it for a year ago; so that that amount practically was all they were paying for the whole year's development work upon the property.

Mr. J. McDIARMIS moved that the meeting be adjourned for fourteen days in order that the shareholders might have time to consider the matter.

This was seconded by another gentleman present, but, on inquiry being made by the Chairman, it was ascertained that neither the mover nor the seconder of the amendment was a shareholder. After a little discussion, however, it was decided that the amendment should be put to the meeting, and that was done; but no one was found to support it except the proposer and seconder.

The CHAIRMAN then put the resolution: "That the provisional agreement, dated September 24, 1896, and made between this Company of the one part and William Cooper of the other part, and now submitted to this meeting, be, and the same is hereby, approved, ratified, and confirmed, except that Clause 17 thereof shall be read as if there were substituted for the word 'all' in both places where it occurs therein, the words 'any two of,' and as if the words 'including the sale and purchase thereby provided for' were added after the word 'purchases' in the last line but one thereof; and that the Memorandum and Articles of the new Company be approved, with the addition of the words 'or any two of them' after the word 'agreements' in the third line of Clause 3 of the Memorandum and in the first line of Article 3."

Lieut.-Colonel ELLIS seconded the resolution, and it was carried unanimously.

The meeting terminated with a vote of thanks to the Chairman.

GREAT BOULDER EAST EXTENDED GOLD MINE LTD.

An extraordinary general meeting of the shareholders in the Great Boulder East Extended Gold Mine Ltd., was held on Monday, at the Cannon Street Hotel, under the presidency of Mr. Douglas A. Onslow, for the purpose of considering a proposed amalgamation with certain other gold mining companies owning properties in the Hannan's district, Western Australia.

The Secretary (Mr. W. Cooper) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—This being an extraordinary general meeting, we have to confine ourselves strictly to the business for which the meeting was summoned. It has been convened to submit to you an agreement which has been already entered into by the directors with Mr. Cooper, as trustee for a new company to be formed, with which it is proposed that this company and three other companies for the present shall be amalgamated. I will explain to you briefly the proposal, and then the solicitor will give you the principal heads of the agreement which it is proposed to confirm. The new company has been registered under the title of the Golden Link Consolidated Gold Mines Ltd., with a total capital of £50,000. The object of this company is to at present purchase the assets and undertakings of four existing companies, all in the Hannan's district and close to one another. The companies that it is proposed now to amalgamate are the Golden Link Gold Mining Company, the Eclipse Gold Mining Company, the Hesperus Gold Mining Company, and the Great Boulder East Extended Gold Mine Ltd. I may tell you that negotiations are in progress for taking in two other companies; but as they are not complete I am not permitted to mention the names of them. The capital has been made large enough for the purpose of taking in the two companies with whom negotiations are now pending. The terms upon which these four companies are to be acquired by the new company in the proposed amalgamation are as follows: The Golden Link, with a capital of £90,000 and an area of 29 acres, will receive for its issued shares £1 5s. per share, or a premium of $\frac{1}{2}$. The Eclipse, with a capital of £85,000, and an area of 18 acres, will receive par for its issued shares. The Hesperus, with a present capital of £100,000, and an area of 48 acres, will receive 15s. per share upon its issued shares. The Great Boulder East Extended—the company in which we are interested—with a nominal capital of £75,000 and an area of 15 acres, will receive 13s. 4d. per share on its issued shares. I may tell you there are 20,000 of our shares held by the Golden Link Company, and you will understand presently that they are not taken into account in the amount that will be issued for our company. The amount, therefore, which will now be issued for the new company for the purpose of acquiring these four companies which I have mentioned to you will be £270,000. They will have a total area of 110 acres. By the acquisition of these four companies the new company will have an actual present working capital in hard cash of between £50,000 and £60,000. I am unable to give you the exact figures, because I do not know them precisely, but the amount is between £50,000 and £60,000; that is to say, the capital they receive from the Golden Link, the Hesperus, the Eclipse, and ourselves. If the £270,000 be deducted from the total capital of £50,000 it will leave £280,000 of capital to take up the two companies to which I have already referred, and after paying for them on terms which have been proposed to them, and which I believe will be agreed to, a very large further sum will be left for additional working capital, the greater portion of which I have reason to believe—it was stated in this hall this morning—will be taken up at a small premium. In addition to the cash to be acquired by the new company, machinery to the value of about £10,000 will also be acquired, the whole of which, I believe, including one complete plant of krom rolls with cyanide plant, &c., being an equivalent of twenty stamps, is already in Australia, if not at present actually on one of the properties. I am not quite sure whether the whole of the plant has been actually delivered on the property. There is also a winding engine and condenser, which, I believe, are on one of the other properties. Besides, there are the developments which have been made on the various properties, and the reefs that have been so far discovered on them. Now, it will be seen from the foregoing, that the new company will be a substantial and a powerful one, and will be well supported by strong capitalists. The advantages claimed as resulting from the association of these companies are: (1) Economy in working expenses. That, I think, will be obvious to you. Instead of having four boards of directors there will be only one, and instead of having four managers and four separate establishments, there will be only one. It was stated at the Golden Link meeting this morning that the actual saving effected in the cost of administration will amount to something like £2,000, if not over £2,000, a year. (2) One powerful company with ample present working capital, and with a large further working capital in reserve and strongly supported. (3) The shares of which company will be held by strong and substantial holders, and they are more likely to command a good price on the market than those of the smaller individual companies. The fourth advantage is that they possess valuable properties and are well situated. Certain reflections were cast by one gentleman this morning on one of the companies to be acquired; but I think they were unmerited. I do not propose to go into that, because, perhaps, it would be outside my province. I may tell you that if this amalgamation is effected it will cost our company nothing. I shall be quite prepared to answer any questions that bear upon this subject, and now I will conclude by proposing the following resolution: "That the provisional agreement, dated Sept. 24, 1896, and made between this company of the one part and William Cooper of the other part, and now submitted to this meeting be, and the same is hereby, approved, ratified and confirmed, and that the directors be, and they are hereby, authorised to carry the same into effect, with such modifications (if any) as they may deem desirable, except that Clause 17 thereof shall be read as if there were substituted

for the word 'all,' in both places where it occurs therein the words 'any two of,' and as if the words 'including the sale and purchases hereby provided for' were added after the word 'purchases' in the last line but one thereof, and that the Memorandum and Articles of the new company be approved, with the addition of the words 'or any two of them' after the word 'agreements' in the third line of paragraph 1 of Clause 3 of the memorandum and in the first line of the third article."

Mr. POMEROY seconded the resolution.

A SHAREHOLDER: I am a considerable shareholder in this company, and also in the Golden Link—a *bona fide* shareholder, I mean. Mr. Scott-Lings, at the meeting of the Golden Link Company this morning, said that it would be only the vendor's shares that would suffer by this arrangement. The Golden Link shareholders, he said, would take £1 shares in the new company, and the only shares that would suffer would be the vendor's shares. Is the 13s. 10d. per share that the shareholders in this company will receive an average of 13s. 10d. per share of the issued capital? The total purchase money that this company receives under the amalgamation, I understand, is £31,000.

The CHAIRMAN: Twenty thousand of our shares belong to the Golden Link Company, and being held by that company it will get nothing for them. Those shares are, in fact, part of the Golden Link Company's own assets. But the actual amount that the shareholders in the Boulder East Extended will receive is 13s. 10d. per share, not par.

Mr. CHESSIRE: Well, gentlemen, I think we need not take up any time in discussing this matter; it is evidently all cut and dried. You are taking over two worthless companies. The Eclipse Company and the Hesperus Company are both worthless. But it is no use arguing the question, the voting power is too strong for us. I am, myself, a holder of 1,000 shares; but I can see that it is no use to say anything. We may just as well shut up the meeting at once and go away.

The CHAIRMAN: I am sorry you take that view of the subject; but I do not think it is at all justified. The Eclipse and the Hesperus Company, so far as I am able to judge from what I have heard—I am not personally acquainted with either of them—possess properties more or less developed, and there is machinery on one of the properties. The object of erecting the machinery which is placed on one of these properties is to raise and crush the ore which has already been discovered on that property. I do not know, therefore, that we should be justified in admitting that either of those properties any more than our own, is worthless. The directors of this company have taken considerable care to go into the whole question, and from our present position, and from what we are able to see as to the advantages that will be derived from the amalgamation, we have come to the conclusion that it is a very desirable thing in the interests of this company.

Mr. MOYSEY: I am the holder of 500 shares in this company, and as such I strongly object to taking such a low value as 13s. 10d. per share. Might it not be possible to stand out for a better price?

The CHAIRMAN: There is one thing that I think you fail to see—it was explained this morning at a previous meeting in this room—and that is, that the amount to be received by each company in the amalgamation has been carefully calculated in proportion to its holding and the position it at present occupies. I am afraid that we should have some difficulty in getting par value for our shares in the market at the present time. I do not want to say anything disparaging to our property. I believe we have a good property, and that it is in an excellent position; but, unfortunately, the outside public does not think so, and we should have some difficulty in disposing of our shares now at anything like their par value. That has been taken into consideration, and, I think, wisely, in fixing the price to be given for the shares. If you consider that the Golden Link shareholders are parting with their shares at only $\frac{1}{2}$ premium, and that they have a large cash consideration in addition to their valuable property, we certainly cannot consider that we are hardly dealt with in being offered 13s. 10d. per share. I am reminded that many of the shareholders present may not have been present at the other meeting this morning, and, though I am not anxious to go over the ground that was gone over at that meeting, I may tell you that it is almost certain that these shares which we acquire in the new company will go to a premium; in fact, as was stated by Mr. Scott-Lings this morning, he has already offered to take an option for the issue of a very considerable number of the new shares—I do not know what is the exact number—at a premium of 1s. 3d. per share. Of course, Mr. Scott-Lings cannot get anything out of those shares unless he sells them at a higher premium than 1s. 3d. per share, and that would put our shares beyond the 13s. 10d. per share very shortly. I think I may say that you will not be making a bad bargain in confirming the agreement that has already been entered into.

The resolution was then put and carried, with one dissentient.

The SECRETARY: I may mention that there are proxies in front of me from a large number of shareholders who are not able to be present at the meeting, the total number being 39,797.

A vote of thanks to the Chairman concluded the meeting.

HESPERUS GOLD MINING COMPANY, LIMITED.

An extraordinary general meeting of the shareholders in the Hesperus Gold Mining Company (Limited) was held at Winchester House, E.C., on Monday, for the purpose of considering a proposed amalgamation with certain other gold mining companies owning properties in the Hannan's district, Western Australia.—Major-General TWEEDIE presided.

The SECRETARY (Mr. H. B. Westall) read the notice convening the meeting.

The CHAIRMAN said: The question for you to-day is the consideration of the proposal to amalgamate a certain number of companies together. Arrangements have been made which I think you will consider render the amalgamation perfectly fair, and also beneficial to all parties concerned. I will ask you to allow me to allow our solicitor to read the agreements and explain them to you. He will do it better than I can.

The SOLICITOR said: The proposal submitted to the meeting was one for the amalgamation of four companies (the Golden Link, the Great Boulder East, the Eclipse, and the Hesperus). These companies all owned properties fairly close together at Hannan's, and together they had an acreage of 110 acres. When the amalgamation was carried out the new company would, therefore, acquire those 110 acres, in addition to which there was a sum of upwards of £50,000 in cash, and £8000 or £9000 worth of machinery, all that machinery being at present in Australia. The main idea of the amalgamation scheme was to effect economy, and it would be obvious that to have one board of directors, one set of officers, and one solicitor instead of four would secure economy in the working and management of the undertaking of the companies. The intention was that the business of the new company should be managed by the gentlemen in whom the shareholders could have every confidence, and in order to secure that the articles of the new company had provided a very unusual thing—namely, that the directors should only hold office until the statutory meeting, when they would present themselves to the meeting for confirmation in their office or the reverse. If the shareholders were satisfied that they were represented by a body of business men who were looking after their interests and the interests of the company, they would confirm them in their office, but if not, they would have the opportunity of appointing directors in whom they could feel confidence. With regard to the new company, its capital had been fixed at £530,000, which was a large capitalisation; but after the taking up of the four companies only £296,000 was required. A certain portion of the remainder would probably be issued within the course of some few months—certainly within the course of the year; and when that was done the new company would have a working capital of upwards of £120,000. The balance of the capital of the new company had been provided with a view to taking in certain further companies, with whom negotiations would be opened by the new company as soon as it was formed. It was obvious that in the present state of matters it was not advisable for him to mention what those companies were, because it might lead them to ask for larger payments than the new company might think wise to give them. At the same time, the directors of the new company would take good care to select companies and properties which were likely to conduce to the benefit of the shareholders of this company. He

did not think he need say anything more with regard to the scheme as a whole. The contract was in the ordinary form for the sale of the undertaking to the new company. It provided for the formation of the new company, and for the new company adopting this contract, if the shareholders present approved of it. The new company had to take over and buy the whole undertaking of the Hesperus Company on September 30 as a going concern, but the Hesperus Company would carry on its business in trust for the new company until the actual transfer of the property. The consideration to be paid was partly the undertaking of those liabilities; and, secondly, the Hesperus Company would wind up, of course, it would have to do when its assets consisted of nothing but shares in the new company, and Mr. Warner was appointed liquidator. The new company would pay the whole cost of winding up. Further, the new company would pay three months' fees to the directors who did not become directors of the new company. That, he thought, was a fair proposal. The directors effected themselves for the shareholders' benefit. The new company would allot to the Hesperus Company at the rate of 13s. 4d. for each share. The Golden Link Company were not to be taken into account in fixing the number of shares to be allotted.

That was obviously a benefit, because it is by that that the issued capital of the new company was very much less. With regard to the rate of 13s. 4d., it was considered that it would fall very unfairly upon those persons who had subscribed for shares in the Hesperus Company if they had to take two shares for three existing shares. Accordingly, the vendor had written a letter to the secretary to the effect that he and his friends agreed to bear the whole rebate which would otherwise fall upon the subscribed shares, and they would distribute among themselves the proportion of the rebate which would otherwise fall upon the subscribed shares. He thought that was a very liberal proposal on the part of the vendor, and one that would be very satisfactory to the shareholders. There was also a provision with regard to shares not yet fully paid up, that if within six calendar months the purchase was not completed the liquidator might regard those shares as surrendered, so that the shareholders who did not pay up would lose their shares. The sales were to take effect from September 30. The certificates were deposited in the bank in the joint names of the Chairman, pending the actual transfer in Australia and England. The new company would cause the agreement to be filed at Somerset House. If the proposals were not completed by October 12, the company would be at liberty to carry them out, but could not be compelled to do so. The board had considered the proposal, and thought it desirable that a rider should be added to the resolution, and it had already been passed by the Golden Link, the Great Boulder East, and the Eclipse Companies. In the first and last cases the decisions were unanimous, and at the Great Boulder meeting there was only one dissentient. The effect of the rider was that if any two purchases were completed by October 15 the matter could proceed, and the expense of bringing it up to this point would be the same as if the clause remained exactly as it was drawn. The whole contract was perfectly straightforward. It was in identically the same terms as those already approved by the three other companies, with the exception that in this case there were partly-paid shares, and there was also a clause as to the Hesperus shares held by the Golden Link not being taken into account.

The CHAIRMAN then proposed the resolution: "That the provisional agreement, dated September 24, and made between this company of the one part and William Cooper of the other part, and now submitted to this meeting, be, and the same is hereby, approved, ratified, and confirmed, with the rider as in the case of the Eclipse Company."

Mr. PATTULLO seconded the motion, which was unanimously carried.

A vote of thanks to the Chairman terminated the meeting.

LAKE VIEW EAST GOLD MINE, LIMITED.

The statutory meeting of the shareholders in the Lake View East Gold Mine (Limited) was held on Tuesday, at the Cannon-street Hotel, when Colonel R. PARRY NISBET (the Chairman of the company) presided.

The SECRETARY (Mr. H. Milner Willis) read the notice calling the meeting.

The CHAIRMAN said: Gentlemen—This is, as you are aware, merely the statutory general meeting of the company, which the law requires shall be held within four months of the formation, and I have no resolution to propose in concluding the remarks I now venture to offer you. The directors have great satisfaction in meeting you to-day, as they wish that the shareholders should be equally well acquainted with everything regarding their property as they are themselves. This company, you are aware, was formed to acquire and work lease No. 947a, comprising an area of 24 acres, and was originally one of the leases acquired by the Hannan's Proprietary Development Company. Our property has, as its immediate neighbours, the Lake View, Lake View South, Lake View Extended, and Central Boulder leases, and I think we are in very good company, as the reports which have been received from those mines show that they are developing in a most satisfactory manner. I hope we may be quite easy with regard to several important considerations necessary to the successful working of our own property. First, as regards water, our property will be very much enhanced in value, and secure at most moderate and beneficial rates a very sufficient supply of this commodity from the Hannan's Water and Ore Reduction Company, which is shortly being brought out by the Hannan's Proprietary Company, and will, it is hoped, be in working order and ready to deliver all the water we require as soon as we can make use of it. Our manager, Mr. George Gray, who is well known as a man of great ability and resource, and one in whom we all place the utmost confidence, informs us that timber at the Lake View East is plentiful, and that there is a fine mill site, so with water, timber, and a good position for our machinery, the prospect appears a very encouraging one. This company was registered on June 8 with a capital of £120,000, of which £60,000 are issued to the vendors in part payment of the purchase money, and £10,000 were reserved for future issue, the issued working capital being £30,000. The flotation was, in every respect, most satisfactory; not a penny was spent in underwriting, for the capital was applied for by our own shareholders in the issuing companies and the public several times over. Our manager, Mr. George Gray, with his usual energy has lost no time in pushing forward the developments of this property. I need not trouble you with reports which have already appeared in the papers, but I will read you the last, which is contained in a letter, dated August 7:—"Re Lake View East Mining Company. You will be pleased to know that this mine is opening up very well indeed. From our No. 2 shaft, when I was down the other day, the croscut was just entering the lode, from the surface of which I took samples which gave by fire assay 8 ounces. From the 18 inches then opened on the hanging wall of the lode in the croscut I took three samples, which gave me by fire assay 5 ounces prospect. This is very gratifying, but, of course, I do not expect that the lode when opened will average anything like this. I shall be perfectly content if it opens and goes as well at the Lake View South. This particular part of the belt is fraught with great possibilities. There are two distinct lode formations in this ground, which have proven a little to the north and east to be exceedingly rich and continuous. A month from now, when both our croscuts are in, they will prove this one lode for a distance of 300 feet. I hope to be able to give you some very cheering and encouraging reports. I have ordered some hoisting works for this mine, which will be erected as speedily as possible." The only other late report is a cable, which has only just been received from Mr. George Gray, dated Kalgoorlie, September 26, which is as follows:—"The value of the Lake View East has been enhanced by the recent discovery of a fine lode, carrying gold milling ore on the Lake View Extended, striking through the heart of Lake View East. We are now sinking on the course of this lode, which is likely to be a valuable addition to other auriferous formations in

this lease. In No. 1 shaft at the 96 feet level, where a strong lode carrying gold was struck, a croscut has been driven west for 50 feet, No. 2 shaft has been sunk 117 feet; a croscut has been driven east for 40 feet. The lode has been driven on the north 31 feet, and 40 feet on the south, and carries gold the entire length. We are now preparing for the erection of the hoisting and pumping plant, and until the mine is fairly equipped we are reducing expenses consistent with good economical working. The ground in the workings is of an exceedingly kind character, and every appearance leads me to the opinion that the mine will respond well to the development." Now and character, I think this latest report on our property is one that should be deemed highly satisfactory. I do not think I need trouble you to day at any great length. Your directors have received with pleasure the report made to them by our most valued managing director, Mr. Herbert Moir, who very recently returned from Western Australia, where he made a personal inspection of this property, the result of which, before we separate, I shall ask him to repeat to this meeting. There is only one other thing, I think, I have omitted to mention—namely, that a settlement is to be made with the shareholders of this company at 13s. paid has been granted by the Stock Exchange committee as from the 14th inst. I hope, however, that some of the shareholders in the Lake View East will think of paying you to do otherwise, I think you may safely declare your indifference as to what the price of the shares may be as long as you have not fallen out of the mine, or anything untoward occurred. Gentlemen, I thank you very much on behalf of the board for your kind attendance here to-day, and I can only assure you that the directors will continue to spare no efforts in your best interests, and will use every endeavour to justify your entire confidence. If, after Mr. Moir has spoken, any gentleman has any question to ask, I shall be pleased to answer it to the best of my ability. (Applause.)

Mr. HENRIET MOIR: I should like to add a few words to what Colonel Nisbet has said in regard to the position of the Lake View East. When I stayed at Hannan's Camp I visited the property, and went down the shafts which were sunk. The results of the assays which were made were brought into the camp whilst I was there, and there was not one of them which was lower than 8 ounces to the ton. I saw the results myself, and we were shown the assays before rate. Most of you know that the lodes at Hannan's Camp run almost due north and south, and not very long ago, on the block called the Australia East, which belongs to the Associated Gold Mine, on their eastern boundary they made an important discovery. A lode was struck there which went over 12 ounces to the ton, and I believe some of the assays were even higher. If you look on the map you will see that the Lake View East is exactly on the strike of the lode which was discovered on the Australia East. It must go right through the centre of our property, and that is confirmed by Mr. Gray's cable with regard to the Lake View Extended, the Lake View East being its southern neighbour. On the southwest boundary of the Lake View East we touch the big Lake View Mine. I hold a large number of shares in our own company, and as Colonel Nisbet has said, I would ask the shareholders not to be frightened by the almost general collapse in West Australian share which has taken place recently, because I believe if you hold your shares until the depression has passed away you will see them at a very much higher price than they are to-day. As the Chairman has said, the working capital has been fully subscribed, and it will be well taken care of. Every penny of the money will be spent on the developments of the mine itself, with the exception, of course, of the small London expenses. Gentlemen, I thank you for your kind attention to what I have had to say; and I would like to add the board, as a whole, have a very large interest in the shares of this company. (Applause.)

Mr. RICHARD DAVIES proposed a vote of thanks to the Chairman and directors for their services to the company.

Mr. H. STEWART seconded the resolution, which was carried unanimously.

The CHAIRMAN: Mr. Davies—On my own behalf, and especially on behalf of my co-directors, I beg to thank this meeting for this vote, and to assure the shareholders that the board will leave no stone unturned to make the property successful, and to keep the resources which have been placed in our hands. (Applause.)

This concluded the meeting.

ANGLO-WESTRALIAN DEVELOPMENT SYNDICATE (LIMITED).

The first annual general meeting of the shareholders in the Anglo-Westralian Development Syndicate (Limited) was held on Tuesday at Cannon-street Hotel.—Mr. H. Stanhope, who presided, said they had succeeded admirably during the 12 months as far as the small capital placed at their disposal would allow. With regard to the future prospects, he explained that amongst their properties was the Bass and Flinders Mine, which they had every reason to hope would prove a very valuable concern. They had another property, which it was intended to keep in their own hands. In these two respects they had achieved a great success, but in the matter of the timber concessions they had been a little less sanguine. Through the pressure exerted, however, the syndicate has recouped in a large degree the losses which appeared on the original account. Mr. Freeman, managing director, spoke in highly enthusiastic terms of the Bass and Flinders Mine. He anticipated that in the future they would be able to pay the shareholders a dividend equal to the amount they had paid out.—The resolution for the adoption of the report was carried unanimously.

STANDARD BANK OF SOUTH AFRICA (LIMITED).
The ordinary general meeting of the shareholders in the Standard Bank of South Africa (Limited) was held at the Cannon-street Hotel, on Tuesday, when Sir W. C. F. Robinson, who presided, in moving the adoption of the report (showing a profit during the six months ending June of £113,301, out of which a dividend of 15s. per share was recommended, with a bonus of 15s. per share, carrying to reserve fund £20,000, and taking forward £13,301), referred to the various events which had occurred in South Africa during the period under review. The output of gold for the month of July was over 200,000 ounces, the highest up to that period of any similar return. The exceptional circumstances were of an uncommon character; they had suffered from abnormally cheap money, but they hoped to employ what they had in a legitimate way soon. They paid 2½ per cent. for money deposited from one to three years, and several years had elapsed since the bank had to avail themselves of the surplus which they had. The commercial development of South Africa was certain in the future. Referring again to the gold mining industry, he might mention that during the month of August the country had raised 212,439 ounces of gold. This was greater than any preceding month within five years. In August, 1892, the output was 103,323 ounces; in August, 1893, 132,089; in August, 1894, 174,977 ounces; and in August, 1895, the return was 203,575. The imports into Cape Colony showed a very large increase, and they had hopes that a further accession of trade would arise from coal operations in the future. They had granted to their employees, now 600 in number, an addition of 10 per cent. to their salaries. (Applause.) He had much pleasure in congratulating those present upon the admirable position which they held, notwithstanding the adverse circumstances against which they had to contend.—Sir H. Barkly seconded the motion, which was agreed to.

STAR OF THE EAST GOLD MINING COMPANY (LIMITED).
The first annual general meeting of the shareholders in the Star of the East Gold Mining Company (Limited) was held on Tuesday, at Winchester House, E.C., when Major-General J. Shaw Stewart, who presided, in moving the adoption of the report and account, said, unfortunately, the hope held out when the company was formed that they would be able to pay dividends from the start had not been realised. In the opinion of the directors, this would have been the case had the mine been so developed as to keep the battery continually crushing. How ever, a great deal of delay had been caused in de-

veloping the mine in consequence of the order for the pumping machinery not having been executed until a long period after it was given out. The result of this was that the working capital of the company had been exhausted, and £5000 had been borrowed on mortgage. But even this amount the directors anticipated would not be sufficient to tide them over their difficulties. In regard to the prospects of the property these were considered to be very gratifying.—Mr. J. Berry White seconded the resolution, which, after considerable discussion, was carried with one or two dissentients.

WHITE ROCK SILVER MINE (LIMITED).

The statutory meeting of the shareholders in the White Rock Silver Mine (Limited) was held at Winchester House, E.C., on Monday, Mr. W. Keswick presiding.—The Chairman said the subscription list closed on June 29, and the allotment was made the day after. The shares were considerably over-applied for, and consequently the whole of the 50,000 cumulative preference shares were allotted. The vendors received in payment for the property 100 £1 shares and 25,000 cumulative preference shares, thus making the share capital £175,000. There was every reason to believe that the £50,000 subscribed capital would amply suffice for all requirements. The property originally consisted of 140 acres, but the general manager, Mr. Howell, while stripping off the debris on the western side of the property, found the ore was improving, and he took up a further 40 acres, while an additional site had been taken at Plumbago Creek to secure their water rights. From latest advices the old machinery was being utilised in the best possible manner, and the ore looked very promising. Two samples had been taken from the shaft, and showed the satisfactory average of 90 ounces and 61 ounces respectively. In regard to the treatment of the ore, they had entered into a contract with the Smelting Company of Australia. Development was being carried on satisfactorily, but he was unable to say when crushing returns would be received.

PALMAREJO MINING COMPANY (LIMITED).

The adjourned ordinary general meeting of the shareholders in the Palmarejo Mining Company (Limited) was held at the Institute of Chartered Accountants, Moorgate-place, E.C., on Monday, when Mr. T. Southcott, who presided, in moving the adoption of the report, said one of the most gratifying features of the profit and loss account was that the debit balance at the end of the year was considerably smaller than it had ever been before. The total debit balance was £173,042, or nearly one-half their ordinary and preference share capital. The company had been offered the Harupa Mine, which adjoined the Palmarejo property, and the directors failed to see how they could disregard the favourable report of the mining engineer upon them. The proposed terms, which the board felt no hesitation in recommending the meeting to accept, would mean a cash payment of £25,000, which was to come out of the profits of working the mine, and was to be made in eight annual instalments. The remainder of the purchase price was to be £100,000 in unified shares. With regard to the Palmarejo Mine, he could not deny, so far as high grade ore was concerned, that it had proved disappointing, inasmuch as they had found very little ore in excess of \$30 per ton. He had, however, still faith in it, and believed that when it was properly developed, they would yet see a good profit from it. In the meantime, it was of great importance that they should have richer ore to work upon to enable them to meet their heavy annual charges, and in the adjoining property they proposed to acquire they would get a grade of ore much higher, and, so far as the reports were concerned, it would be a most desirable acquisition.—Mr. T. Eley Sykes seconded the motion, and considerable discussion followed with regard to the conditions upon which the new property should be acquired.—The resolution for the adoption of the report was ultimately put and carried, with the addition that no directors of the Gold Fields Company of Mexico be eligible for a seat on the board of the Palmarejo Company.—Subsequently an extraordinary meeting of the shareholders, and a special meeting of the preference shareholders were held, when resolutions making certain alterations in the constitution of the capital of the company were passed.—A vote of thanks to the Chairman concluded the proceedings.

MELBOURNE DEMOCRAT GOLD MINES (LIMITED).

The statutory meeting of the shareholders in the Melbourne Democrat Gold Mines (Limited) was held on Wednesday, at Winchester House, E.C., when Col. L. Anstruther, who presided, said the capital of the company was £100,000, of which £15,000 was set aside for working capital. The property, which was within 24 hours of Melbourne, consisted of the Democrat, Balance, and Republic leases, and comprised total area of 83 acres. On the first lease the Democrat lode was being developed by means of three tunnels. In No. 1 tunnel the reef was 7 inches wide for 40 feet, and in No. 2 500 feet had been driven on the lode, which averaged 10 inches in width. A crushing of 776 tons from this tunnel made by the Australian company, the vendors of the property, yielded 3817 ounces of gold. The No. 3 tunnel, they were informed by cable, had cut the lode at a depth of 555 feet. Its width was 4 inches, and it was estimated to be worth 5 ounces a ton. In regard to the question of machinery, the Livingstone battery, which had been erected a short distance from the property, had been purchased.—A vote of thanks to the Chairman concluded the meeting.

BRADBURY'S DRILL SHARPENER COMPANY (LIMITED). The adjourned meeting of the shareholders in this company was held on Thursday, at the Guildhall Tavern, Gresham-street, E.C., Mr. Newman Marks presiding.—Mr. J. R. Knight, secretary to the investigation committee, read the committee's report, in which it was stated that the dissatisfaction expressed at the last meeting was fully warranted by the state of affairs which was disclosed in the course of their investigations. The company was formed twelve months ago in Johannesburg to take over all the patent rights of the old company in return for 40,000 shares, 15,000 shares were held in reserve, and 15,000 shares were allotted to Mr. Bush in consideration for his finding £5000 working capital, which is all the company started with. The report then proceeded to cast certain reflections upon the management, and ended with suggestions to the effect that the present board should be replaced by a new one, that the board at Johannesburg should be abolished, and that the offices of the company should be removed.—The Chairman, in replying to the report, first complained of a want of courtesy on the part of the committee in not furnishing copies of the *ex parte* statement which had just been read to the directors. He stated that the report showed an absolute partiality throughout the discussion, a poll was taken on the question of the composition of the board, which it was agreed should cover the other questions at issue. The result was decided as follows: For the nominations of Mr. Backhouse, 16,464; for the nominations of Mr. Burnett, 24,488.—The Chairman thereupon declared Messrs. Bradbury, Paterson, Marks, Hall, and Marshall duly elected as the new board. He intimated that the board would prepare a statement of accounts made up to date, and call a general meeting at the end of the year, when the whole position would be placed before the shareholders.

CAMDEN EXPLORATION COMPANY (LIMITED).

The statutory meeting of the shareholders in the Camden Exploration Company (Limited) took place on Thursday, at Winchester House, E.C., when the Chairman (Mr. W. A. Harper) stated the company was formed to take over the assets of the Camden Syndicate. Mr. John Howell, their consulting engineer, had reported very favourably on their prospects, he having secured for them two large gold mines in New South Wales. There were exceptional facilities for working the mines, from adit levels, in the most economical manner. They were also advised that the lodes were highly profitable, and varied in width from 16 feet to 20 feet. In Mr. Howell's opinion there was an immense quantity of ore to be extracted above the adit levels. At present the directors had not decided whether they would work the two mines themselves or to form a separate company to take over one of them.

OLD BROAD STREET SYNDICATE (LIMITED).

The statutory meeting of the shareholders in the Old Broad Street Syndicate (Limited) was held on Thursday, at Winchester House, E.C., when Mr. W. M. Farmer, who presided, said the first issue of £10,000 was readily taken up. The first property they sought to acquire was Lindsay's Extended, but on a report being made to them by Mr. Archbold, who examined it, the directors were not satisfied with the prospects, and after getting the opinion of Mr. Archbold confirmed, they decided to abandon the mine. However, they hoped shareholders would lose none of their money in consequence, as they were bringing an action against the vendors for the return of the amount parted with on the ground of alleged misrepresentation. Since Mr. Archbold had secured for them another property, the Cornstalk group, which was situated in the Ullaring district, and from the reports received they had every reason for believing that it would prove a valuable one. When sufficiently developed the mine would be floated as a separate company, and the directors hoped that the shareholders would then secure a very substantial profit.

VALE OF COOLGARDIE GOLD MINES (LIMITED).

The statutory meeting of the shareholders in the Vale of Coolgardie Gold Mines (Limited) was held on Thursday, at the Cannon-street Hotel, under the presidency of Major F. J. Ricarde-Seaver.—The Chairman said the nominal capital of the company was £90,000, £30,000 of which formed the working capital. The vendors showed their confidence in the property by accepting shares to the extent of £60,000 in payment. The company had been most fortunate in securing the valuable services of Dr. Simon, President of the Coolgardie Chamber of Mines, as its resident managing director. Pending the arrival and erection of the plant selected, he had been enabled to make arrangements for crushing on a small scale, as a test than otherwise, such samples of ore as he might deem expedient to extract. The property was situated in the Coolgardie gold fields, 7 miles north of the town of Coolgardie itself, and consisted of two mining leases, comprising between them 30 acres, in addition to which they had a water right area covering five acres. Regarding timber and fuel, the directors were assured that extensive eucalyptus forests surrounded the mine, which were capable of supplying their wants. They were also assured that an ample supply of water for milling requirements would be forthcoming. A shaft had been sunk on the quarry reef, and the ore exposed was very promising, portions of it being densely impregnated with visible gold. In a cable dated October 1, Dr. Simon stated that at the 70 feet level the reef showed visible gold, and at the 200 feet level a well defined and compact reef between the walls. In addition to the Quarry reef they had the main reef, which, at the depths attained, was reported to be still strong, and yielding good payable ore. Mr. P. Bellard, a mining engineer of repute at Coolgardie, estimated at the end of March last that on the main reef there were 9000 tons of ore developed and ready for stoping. As regarded promise of permanency and richness, the main reef, in his opinion, deserved to be ranked among the first in Western Australia.—A vote of thanks to the Chairman concluded the proceedings.

COOLGARDIE GOLD SYNDICATE (LIMITED).

An extraordinary general meeting of the shareholders in the Coolgardie Gold Syndicate (Limited) was held at the Great Eastern Hotel, Liverpool-street, E.C., yesterday, when the abridged resolution, which was passed at the extraordinary general meeting of the company held on September 22, was submitted for confirmation:—“That each of the existing 10s. shares of the company be divided into two shares of 5s. each, and so that as regards those shares which are not fully paid up, the proportion between the amount which is paid and the amount which is unpaid on each share of reduced amount shall be the same as it was in the case of the existing share from which the shares of reduced amount are derived.”—The Chairman, in moving the confirmation of the resolution, said he was pleased to say that Mr. Sherlaw had written the directors, stating that he had 5 feet of water at the bottom of the shaft, and considered that the quantity would considerably increase as the sinking proceeded. This was very encouraging news in view of the fact that the water company was charging 12s. and 13s. per 1000 gallons. As showing the feeling of the shareholders in regard to the resolution, he mentioned that the directors had received 66,388 votes by proxy, or nearly 14,000 more than they received at the previous meeting.—Mr. J. A. Travers seconded the motion, and it was agreed to.—Replies to the usual vote of thanks, the Chairman said on October 24 they would receive a dividend of 25 per cent.—The meeting then terminated.

MR. GEORGE BEETHAM has accepted a seat on the board of the Taitapu Gold Estates (Limited) rendered vacant by the death of Colonel G. C. Thomson. Mr. Beetham sails for New Zealand in the course of a few days, and will visit the Estate on behalf of the company.

THE DEEP LEVELS OF THE RAND.—Our eminent contemporary *The Standard and Diggers' News*, has just published as a supplement a coloured central section of the Witwatersrand gold fields showing the deep levels. The work is admirably executed, and should meet with general and immediate favour.

DIARY.

Saturday, October 10.

North of England Inst. of Mg. and Mech. Engnrs, Newcastle, 2.

Monday, October 12.

Lady Loch Gold Mining, Winchester House, 12.
Forest King Gold Mine, Winchester House, 12.
Hauraki South, Winchester House, 2.30.
Elmore's French Patent Copper Depositor, Win. House, 2.30.
Wemmer, Johannesburg.

Tuesday, October 13.

Murchison New Chum, Cannon Street Hotel, 2.
Isle of Man Mining, Chester, 2.30.
Langlaagte Royal, Johannesburg.

Wednesday, October 14.

Leadhills Silver Lead Mining and Smelting, Finsbury Ho., 12.
West Kitty, 37, Walbrook, E.C., 12.
Montana Mining, Winchester House, 12.
Great Laxey, St. James's Hall, Douglas, 12.
North Laxey and Glencrerry, St. James's Hall, Douglas, 12.30.
Westralia, Winchester House, 2.
Appantoo Gold Mining, Winchester House, 2.
London and Orange Free State Exploration, Kimberley, 11.
Nourse Deep, Johannesburg.

Thursday, October 15.

Sierra Buttes Gold Mining, Cannon Street Hotel, 12.
Plumas Eureka, Cannon Street Hotel, 12.
African Gold Recovery, Cannon Street Hotel, 12.
Blackett's Gold Mines, Winchester House, 12.
Almaraz Tin Mining and Smelting, Winchester House, 12.
Linares, 6, Queen-street-place, 1.
Fortuna, 6, Queen-street-place, 1.30.
Alamillos, 6, Queen-street-place, 1.45.
Nepean Gold Mines, Cannon Street Hotel, 2.
Gallymont Gold Fields, Cannon Street Hotel, 2.30.

Friday, October 16.

Violet Consolidated, Winchester House, 12.
Caratal, Winchester House, 12.
McCalloch, Coolgardie, Cannon Street Hotel, 1.30.
Exploration Company, Cannon Street Hotel, 2.30.
Institution of Junior Engineers, Westminster Palace Hotel, 8.

The SUBSCRIPTION LIST will be CLOSED on TUESDAY, 13th October, for TOWN, and on WEDNESDAY for COUNTRY Applications.

This Prospectus is issued by the Mines Contract Company, Limited, who guarantee the Working Capital.

PEABODY AND BERKSHIRE GOLD MINES, LIMITED.

WANDILIGONG, VICTORIA, AUSTRALIA.

Incorporated under the Companies Acts, 1862 to 1890.

CAPITAL £100,000.

In 100,000 Shares of £1 each.

NOW OFFERED FOR SUBSCRIPTION, 40,000 SHARES.
Payable: 2s. 6d. on Application; 2s. 6d. on Allotment; the balance in Calls not exceeding 5s. per Share, and at intervals of not less than two months.

5000 SHARES TO BE HELD IN RESERVE.

DIRECTORS.

Dr. ROBERT FARQUHARSON, M.P., Director of Bovril, Limited.
Sir WALTER OLIVEY, K.C.B.
J. H. BORRER, Esq., J.P., Director of Hannan's Sir John Forrest Gold Mines, Limited.
CHARLES SIDNEY, Esq., Director of Mount Usher Gold Mine, Limited.
Major J. F. HOUSTOUN, of Clerkington, Haddingtonshire.

BANKERS.

THE NATIONAL PROVINCIAL BANK OF ENGLAND (LIMITED), Bishopsgate Street, London, E.C., and Branches.

SOLICITORS.

Messrs. SHEFFIELD, SON, and POWELL, 23, St. Swithin's Lane, London, E.C.

BROKERS.

Messrs. R. E. TOMKINSON and Co., 74, Cornhill, London, E.C.

AUDITORS.

Messrs. PARKINSON, MATHER, and SMITH, Chartered Accountants, 22, Great Winchester Street, London, E.C.; and at 8, King Street, Manchester.

SECRETARY AND OFFICES.

Mr. FRANK FULLER, Tower Chambers, Finsbury Pavement, London, E.C.

ABRIDGED PROSPECTUS.

This Company has been formed to acquire and work two Gold Mining properties, the one known as “Peabody,” having an extent of about 50 acres, and the other the northern half of “Berkshire,” about 15 acres, adjoining, with all Rights, Claims, Mill Site, and Water Rights.

The properties are advantageously situated, being within about 2½ miles of a Railway Station; and 200 miles from Melbourne, and according to the Reports there is an ample supply of water and timber for all milling and mining operations.

The Mines have been worked in a primitive way, but with the Capital now to be provided a Mill can be erected, and a low level tunnel driven, which will intersect all the reefs about 150 ft. below the present workings, and do away with the sleighing and cartage of the ore to the Custom Mill, which is now necessary.

The “Peabody” Mine has been thoroughly well proved, having been worked on a small scale since 1861. For ten years, up to November, 1893, it was in the hands of two working miners, Messrs. Peter and Thomas Robertson (father and son). During the time they were the owners, they took out gold to the value of over £10,000. Six Reefs have already been cut, and partially worked upon, the following being returns from some small crushings of ore, made by Messrs. Robertson:—

674 tons yielded 1414 ounces gold.

Some of the ore milled 4½ ounces gold per ton.

Since 1893 a considerable amount of work has been done, a tunnel having been driven 637 feet, which has cut the reefs worked in the upper levels. In the course of development small quantities of ore have been collected, and nine crushings made, in all about 445 tons, which yielded 726 ounces of gold, and realised over £4 per ounce, the last crushing showing about 2 ounces to the ton.

Work has only been done on a very small part of the company's property. The northern portion has not yet been touched, with the exception of slight surface workings.

It is believed that the reefs already found on the “Peabody” will run into the “Berkshire,” which gives the properties an additional value, especially as they can be conveniently worked together. The new tunnel can be made in such a way that the mines will be drained, and the trucks run direct to the mill site, where it is proposed to erect a battery. All crushings in the past have been at a Custom's Mill, and the late owners are of opinion that a considerable percentage of the gold has been lost in treatment. The district is noted for the large output of gold in the past. The “Oriental” Claim, which is situated next to the Southern half of the “Berkshire,” is said to have contained a reef 30 to 40 ft. wide, and produced gold to the value of £750,000, to a depth of 200 ft. This line of reef enters the “Berkshire” property, and some of the ore taken has yielded as high as 5 oz. of gold per ton.

Mr. J. Macdonald Cameron, F.G.S., F.C.S., formerly Member of Parliament for the Northern Burghs, and now Deputy Master, Sydney Branch of the Royal Mint, has made a most exhaustive report.

The Properties have also been reported upon by Mr. T. G. Davey, F.G.S., &c., Mr. R. H. Rowe, Mining Engineer, and Mr. H. P. Richards, Mine Manager. Extracts from these reports are contained in the full Prospectus.

Mr. R. H. Rowe, Mining Engineer, says in his report:—

“I have been connected with quartz mining in the Australian Colonies over 40 years and since 1871 have been mining manager. The opinion I have given on the ‘Peabody’ is not a scientific one, but that of a practical miner who is well acquainted with the characteristics of the quartz reefs in this district, having been mining here many years, and in my opinion the Peabody Mine will prove to be one of the best mining properties in this proverbially mining centre, and have very great pleasure in recommending it to investors.”

The Reports have been made for the Peabody Gold Mining Corporation Limited, the former owners of the “Peabody” portion of the property, and the statements herein are based upon the said reports.

The purchase price of the properties has been fixed at £85,000, payable as to £55,000 in fully paid-up Shares of the Company, and the balance in cash or shares at the option of the Directors, leaving available 15,000 Shares to provide working capital, of which 10,000 Shares will now be issued and 5000 Shares held in reserve, as recommended in the reports.

The Mines Contract Company, Limited, are the Vendors and the Promoters of the Company, and will pay all expenses of and incidental to the formation of the Company up to and including the first general Allotment.

For particulars of Contracts, &c., see full Prospectus.

The Agreement and Memorandum and Articles of Association can be inspected at the offices of the Solicitors of the Company, and the reports, maps, plans, &c., may be seen on application at the offices of the company.

Prospectuses and Forms of Application may be obtained from the Bankers and Solicitors, and of the Secretary, at the offices of the Company.

The CHAMPION REEF GOLD MINING COMPANY OF INDIA (LIMITED) have sold the gold produced in August for £26,065 8s.

The London agents of the RANDONTEIN ESTATES GOLD MINING COMPANY, WITWATERSRAND (LIMITED), notify that certificates for the bonus shares of Porges Randfontein Gold Mining Company (Limited) are now ready for delivery, in exchange for the forms of receipt which have been posted to registered shareholders.

PARIS LETTER.

State of the Mining Market.—English bears and French investors.—Outlook for South African shares.—Mining enterprise abroad.

(FROM OUR OWN CORRESPONDENT.)

THE Paris mining market is beginning to show evidence of an innate weakness that was until lately only suspected to exist. Shareholders have been "sitting" on their South African mines with wonderful pertinacity for many months past with the conviction that the expected revival must come at some time or another. They had learned from the experience of the slump of last autumn that it was extremely unwise to realise their holdings at the instigation of the professional bears, and that if they could only weather the period of low prices they would be compensated before long by larger profits. Speculators likewise displayed the greatest confidence in the early future of the market, and a few weeks back showed themselves willing to take up shares at the values then ruling. It was fully expected that the South African market was on the eve of a general upward movement, and if more buying was not then indulged in it was only because speculators preferred to wait a little longer, in order to seize the psychological moment when they would be able to secure the largest margin of profit. Thus the dissatisfaction now being expressed as to the state of the market is all the keener because the confidence of a few weeks back was believed to be so well placed, and the sudden drop from hope to despair, at the time when speculators believed themselves at length on the way to make a fortune, has left a great many people so disappointed that they are only awaiting a favourable opportunity to clear out of South African mines with the least possible loss. The fact, too, that shareholders are naturally inclined to initiate a comparison between the position of the mining market at the present time, and what it was exactly a twelvemonth ago, is not altogether in favour of mining shares. The slump of last autumn is in reality being repeated, though on a smaller scale, at the present moment, and looking back on the past year speculators and investors find that the situation has in no way improved, that it has indeed gone from bad to worse. It was expected in some quarters that the visit of the Tsar to Paris would have some effect in firming up mining shares by creating confidence among the investing public in the political outlook, but it is evident that political matters have extremely little to do with South African mines, whatever influence it may exert upon finance generally. If anything, the Imperial visit has merely served to still further accentuate the depression by keeping people away from the mining market; and this week there have probably been fewer transactions than at any similar period during the year.

Yet a closer investigation into the situation of mining shares makes it very clear that the position of the market is not so bad as it seems. If heavy sales are being effected, this is due, not to the large holders of South African scrip, but to the small speculators and investors, who only see in the persistent downward movement an evidence of chronic instability from which it is hopeless to expect the market to recover. The great financial houses know well enough that while the Witwatersrand gold mining industry continues to develop as it is doing at present the shares will maintain their high intrinsic value, and if prices are falling this is no reason for throwing shares on the market under the impression that it is better to bear the losses they have than to fly to others they know not of. They are perfectly aware that the market is being manipulated to a more or less appreciable extent by the financial groups, of which they may, perhaps, themselves form a part, and when it suits these groups to bear mining shares they will do so, and those who have had sense enough to hold on to their good shares will profit materially thereby. It is indeed a well-known fact that a good many of the financiers and banks are taking up much of the scrip that is being offered at very low rates, and they are apparently little disposed to protest against the tactics of the English and French professional bears who are just now doing their best to depress values to the lowest possible point. The rumours that have been industriously circulated of late as to possible complications between England and the Transvaal, and of alleged crises that have arisen among certain of the individual companies, have done much to shake the faith of the timid investor in the future of South African mines, and for some weeks past there has been a steady off-loading of scrip. Brokers now profess to believe that the selling movement is coming to an end. The weak holders have been selling so freely that there must be very few of them left, and that, consequently, the position is ripe for a general improvement. This, however, is somewhat optimistic view of the situation, and there is nothing for the moment to justify the belief that an early upward movement will take place.

One of the most serious elements that tell against any immediate recovery of South African shares is the fact that a considerable number of people who purchased scrip last autumn at inflated rates are awaiting a chance to relieve themselves of their holdings under the best conditions possible. A rise in values to anything approaching the quotations prevailing a year ago would thus inevitably result in the throwing of great quantities of shares on the market, and another set back would be almost certain at a time when it would be most necessary to carefully nurse the market. Of course, it is quite probable that this check would be merely a temporary one, though whether this be so or not would depend entirely upon the strength of the recovery. Moreover, investors are showing a disposition to exercise more caution than formerly in the selection of their scrip, and are discriminating with more care between the good and bad mines. This, however, is invariably the case when the quietude of the market gives them more time for reflection, and it yet remains to be seen whether they will profit by their lessons at the moment when prices undergo an upward movement. As it is, it is pointed out that there are scarcely a dozen mines of which the yield justifies the quotations at which they have been for some time selling, and even some of these will be unable to undergo further development without the aid of additional capital. In fact, the heavy capitalisation of the various companies rendered necessary by the perfected systems of working needed to deal with the comparatively poor basket reef is one of the factors that awakens a good deal of doubt as to the prospects of the Rand mines in the minds of French investors. The yield may go on increasing at a rapid rate, it is true, but if the capital employed has to keep pace with the results obtained the benefits according to the shareholders are not materially enhanced. It is, however, fully recognised that the Rand industry would be capable of paying much greater dividends if it were only relieved from the many burdens that are imposed upon it, and it is to this question that the French have been giving increasing attention of late. In thus trying to create a distinction between the good and indifferent mines, the French have come to the conclusion that their attention ought to be confined to a dozen at the most, for beyond these there is practically nothing so far of which the prospects would warrant an advance upon the prices now being quoted. Investors here are, therefore, of opinion that the dividend-paying mines might reasonably undergo an upward movement, but that the others, whose prospects are not clearly defined, should be left alone. If this policy were invariably adopted it is to be feared that mining enterprise would hardly be able to make so much progress as it does at present, and it is perhaps advisable that precept and practice do not always go together, and that the majority of investors prefer to take a little risk in the hope of securing larger returns.

While all classes of buyers are thus little disposed to deal in South African shares for the moment, it was only to be expected that the business done on the Bourse during the past week should have been restricted within very small limits. All the speculative scrip has especially suffered from the quietude, and this has been accentuated by the necessity of one of the firms disposing of large blocks of East Rand. Gold Fields have also been extremely quiet,

and Chartered have weakened on account of bearing rumours as to the probability of this company being called upon to pay a heavy indemnity to the Boer Government. Prices all round have consequently been dropping steadily, and will, no doubt, continue to do so until the London Stock Exchange displays renewed confidence in the future of South African shares by sending over higher quotations. As Kaffirs practically rule all other descriptions of mining shares, it is only natural that the quietude in this department should have intensified throughout the market generally, and while capital continues to show so little disposition to interest itself in mines, there is a complete absence of new mining enterprise. The syndicates themselves are even participating in the depression to the extent that their shares have dropped appreciably during the past few days, and it is thus hardly possible that they will follow up their propositions to carry out mining undertakings in Australia and elsewhere until the situation becomes more favourable.

MINING IN CORNWALL
AND DEVON:
NOTES ON MINING IN THE WEST.

(FROM OUR OWN CORRESPONDENT.)

THE continued decline in tin is so monotonous as to be uninteresting. It has been going down for days gradually, and has touched now a point lower than at any time since 1878. The outlook does not look very promising either—that is to say, the immediate outlook—for with the further increase in stock, which the figures for September showed, the continued heavy shipments from the Straits, and the possibility of consumption being still further restricted by a strike among the Welsh tin-plate workers, are all against the chances of a recovery just immediately, at any rate. Then if these unfortunate circumstances did not exist there would be the uncertainty in regard to the American presidential election, which would tend to check any forward movement, so that it seems idle to look for much change until after the result is announced, and by that time it is just possible that the other adverse conditions may have become modified. The only question which seems to be asked here now is as to how much lower tin is going; the Cornish shareholder wants to see it touch rock-bottom as soon as possible, for the sooner then will come the reaction. He remembers, and it is the recollection of it which has enabled him to retain his sanguine temperament, that evil days have fallen on Cornish mining before; he was told in 1873, when the Australian discoveries were made, that Cornwall was done, and that the mines might as well close at once. But there were a good many who were confident enough that consumption and production would right themselves once more, and, as events turned out, they were well repaid for their pluck, for, after several years of depression, there came a time—in 1879—when it was found that consumption had run away with the stocks, and up went the price with a bound, in fact, with too much of a bound, for there was an undue inflation, and the consequent reaction. But even the reaction only brought the price back to about double the present figure. If this happened in 1879, and we believe it also happened in the 'forties, there is at least no reason why history should not repeat itself once more.

ANOTHER thing which is inducing a good many people to hang on to stock which is not now costing them much is the possibility of some important discoveries being made. There is no use getting away from the fact that in consequence of the curtailment of operations which the depression has necessitated, there have been no discoveries of any consequence in the last year or two. With the new era of Limited Liability, and a fair amount of capital awaiting for development, the chances of discoveries are greatly increased. And in this matter two speculators in tin mines have something in history—and not very ancient history—to back them up, for they remember that in this last depression of 1878, the Pevor Mines raised all their tin and made their profit of £100,000 with it at its present figure or thereabouts; and there is no reason why Carn Brea or Bassett should not meet with similar good fortune now. In the share market there is absolutely nothing doing, and the quotations which are given of the prices of shares are purely nominal, and do not represent any transactions in them.

So far as we can learn there is nothing doing yet in regard to Wheal Agar and East Pool, and the new lease of the former mine. We certainly do not believe, and we have some reason for saying so, the rumours which have been on some people's lips for the last few days to the effect that Lord Robartes has granted a new lease to Wheal Agar executive. On the other hand, we cannot discover that East Pool committee have yet made any definite overtures. To speak candidly, we have a very strong opinion that East Pool are not particularly anxious to push things on too fast just now. It might, for instance, be inconvenient, to say the least of it, to find themselves under an obligation to at once fork the water from Agar and drain the two mines. That is a big job, and means a lot of money, and it is very doubtful whether East Pool shareholders will care to tackle it with tin at its present price.

THE meeting of shareholders will be held on October 19, when the latter will have to face a serious state of things. The west ground is all under water, and the sales of the amount to no more than 6 tons per week. A heavy loss is inevitable.

KILLIFRETH meeting will be held next week—in Portsmouth, of all places in the world. Probably it will be the first mine meeting ever held in the great dockyard town. The majority of the shareholders reside in Cornwall, and the holding of the meeting in Hampshire has given rise to a considerable amount of dissatisfaction.

ANOTHER meeting which is fixed for next week is West Kitty. In spite of the adverse circumstances under which the mine, in common with all others in the county, is now carried on, a small profit will be shown.

BLAST FURNACES OF THE UNITED KINGDOM.—Total number of furnaces built on September 30, 1896, 690. Total number of furnaces in blast on September 30, 1896, 373. No change in the number of furnaces built since June 30, 1896, nil. Decrease in the number of furnaces in blast since June 30, 1896, 2. Furnaces blown in since June 30, 1896, 9:—Cumberland (1), Cammel, C. & Co., Limited, 1. Derbyshire (1), Staveley Coal and Iron Co., Limited, 1. Durham (1), Palmer's Shipbuilding and Iron Co., Limited, 1. Yorkshire, N.R. (2), Normandy Iron Works Co., Limited, 1. Whitehill, W. & Co., 1. Glamorganshire (1), Swansons Hematite Iron Co., Limited, 1. Monmouthshire (1), Pyle and Blaina Works, Limited, Pyle, 1. Ayrshire (1), Baird, W. & Co., Eglington, 1. Lanarkshire (1), Baird, W. & Co., Gartsherrie, 1. Furnaces blown out since June 30, 1896, 11:—Cumberland (1), Lonsdale Hematite Iron and Steel Co., Limited, 1. Lincolnshire (1), North Lincolnshire Iron Co., Limited, 1. Northamptonshire (1), Wellingboro' Iron Co., 1. Nottinghamshire (1), Madeley Wood Co., 1. Durham (1), Carlton Iron Co., Limited, 1. Yorkshire, N.R. (1), Acklam Iron Co., Limited, 1. Glamorganshire (1), Darwen and Mostyn Iron Co., Limited, 1. Monmouthshire (1), Pyle and Blaina Works, Limited, Blaina, 1. Lanarkshire, (3), Coltness Iron Co., 1. Dixon, Wm., Limited, Govan, 2. Furnaces being built at present time, 1:—Monmouthshire (1), Pyle and Blaina Works, Limited, Blaina 1. Furnaces being rebuilt at present time, 3:—Staffordshire, South (2), Hingley, N. & Sons, 1. Roberts & Co., 1. Glamorganshire (1), Briton Ferry Works, Limited, 1. Rylands.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

AMERICAN BELLE.—The following cable information has been received from the mines:—"Output for August month: National Belle Mine, 125 tons; value \$150. Hudson Mine, 165 tons; value, \$1550."

ALADDIN'S LAMP.—The following cablegram has been received from the superintendent at the mines:—"Six weeks' return totals 3011 ounces of gold; approximate value, £11,040; namely, 360 tons of ore have been crushed, yielding 2446 ounces, and 5 tons rich crude ore have been shipped containing 56 ounces." This is the final clean-up for financial year just ended. The next run will be for three weeks to resume regular course.

BARRETT GOLD.—September gold return 600 ounces. The dry crusher and six additional cyanide vats in course of construction are expected to be completed by November 1. Meantime large stocks of ore are accumulating.

BONANZA.—Results for September:—A cablegram has been received from the head office, Johannesburg, stating the following results for last month:—"Crushed, 2890 tons; obtained from mill, 2683 ounces; obtained from cyanide works, from 2100 tons of tailings treated, 1319 ounces; total, 4002 tons."

BAYLEY'S REWARD CLAIM AND BAYLEY'S REWARD NO. 1 SOUTH.—Cabled advices have been received from the head offices of the above-named companies that the resolutions for the amalgamation of the companies were duly confirmed at meetings of the companies held in Melbourne on the 8th inst. The transfer books of the companies are now finally closed.

BLOCK B. LANGLAAGTE ESTATE.—Production for September (by cable):—"Mill. Stamps running, 75; ore crushed, 7922 tons of 2000 lbs.; gold retorted, 1971 ounces. Tailings, cyanide process. Tons treated, 4730 tons of 2000 lbs.; gold recovered, 500 ounces. Concentrates, cyanide process. Tons treated, 204 tons of 2000 lbs.; gold recovered, 350 ounces. Total gold recovered, 2821 ounces."

BAKER'S CREEK.—Result of crushing to October 3, 247 ounces retorted gold.

BALAGHAT MYSORE.—The London office has received the following cablegram from Mr. Richards:—"182 ounces of gold obtained from 2826 tons of tailings."

CHAMPION REEF.—The London office has received a telegram from the mine, dated October 3, giving last month's return of gold as follows:—"6747 tons of stone produced 7012 ounces of gold; 2180 tons of tailings produced 593 ounces of gold; total production for the month, 7605 ounces of gold."

CHAMPION REEF (Nannine, W.A.).—Translation of cable received from the general manager, dated Nannine, Sept. 28, delayed in transmission:—"The main shaft is down 100 feet. We have received the foundations for the mill, and are now in a position to complete the battery without further delay."

COROMANDEL.—The London office has received a telegram from the mine, dated October 3, giving last month's return of gold as follows:—"1400 tons of stone produced 810 ounces of gold."

COSMOPOLITAN.—The following cable has been received from the company's agent at the mines for the month of September:—"176 tons treated produced 414 ounces of retorted gold."

CUMBERLAND.—Cablegram giving the result of cyanide operations for the month of September:—"Tailings works recovered 241 ounces from 408 tons at a cost of £252. The estimated value is £525."

CENTRAL DE KAAP.—The manager reports under advice dated September 3:—"Yesterday's and to-day's panning assay shows 25 to 30 cwt. gold, deep in colour, with but slight admixture of silver."

CITY AND SUBURBAN.—Last month's crushings yielded 9968 ounces.

CLUTHA.—The following advice has been received from the mine:—"C winze is now connected with the 200 feet level pannings on this winze run from 4 dwts. to 2 ounces; 200 feet level. Reef well-defined, in face 4 feet 6 inches; pannings all through the bottom are very good, with very heavy gold."

CASSEL COAL.—A cablegram just received gives the output for the month of September as 31,500 tons; profit, £730.

CONSOLIDATED MURCHISON.—Cablegram received states:—"Day Dawn Mine, 505 tons crushed, obtained 213 ounces of gold."

DE LAMAR.—The following is the cabled return for the month of September:—"Crushed during the month 4,170 tons; produced in the mill, \$58,610; estimated value of ore shipped to smelters, \$5200; miscellaneous revenue, \$295; total produce, \$64,105; total expenses, \$44,000; profit for the month of September, \$20,015; or at \$490 to £ sterling £1055." The directors have declared an interim dividend (No. 21) for the half-year ending September 30 of 1s. per share (free of income tax) payable on the 31st inst. to all shareholders on the company's books on the 6th inst.

DAY DAWN BLOCK AND WYNDHAM.—Cablegram from the general manager at Charters Towers giving the result of the crushing for the fortnight ending the 3rd instant:—"Tons crushed, 1285; yield of gold, 888 ounces; approximate value, £3000; fortnight's expenses, £2170."

DURBAN-ROODEPOORT.—The following results for September have been received by cable:—"Quartz milled, 9620 tons; 75 stamps; 27 days; 4357 ounces. Tailings treated, 6440 tons; 27 days; 1758 ounces. Total, 6115 ounces." The warrants for the month of September as 31,500 tons; profit, £730.

26th ult. All news from the mine is satisfactory.

DUNDERBERG GOLD MINES.—The directors have received information by cable from the manager that the mill will start running on October 25.

EAGLE'S NEST.—The London office has just received the following cablegram from their manager at Barberton:—"Struck a rich body of ore, 10 feet in width, East Drift Moonstone."

EAST MURCHISON UNITED.—A cable has been received from the mine stating that a clean up will take place on October 10, and it is expected that the result will be cabled home about October 16.

FRONTINO AND BOLIVIA.—The directors have received a cablegram from their manager, giving the result for September as follows:—"Estimated produce, £10,540; estimated cost, £5430; estimated profit, £5110."

FERREIRA.—Copy of cablegram received from Johannesburg:—"Results for September. Crushed, 10,565 tons; bar gold extracted, 9020 ounces; concentrates caught, 213 tons; assay value of concentrates 7 ounces; fine gold per ton, equal to (say) 1491 ounces.—Cyanide works. Bullion produced from tailings, 3309 ounces; total gold from all sources, 13,820 ounces."

GEORGE GOCH AMALGAMATED.—The following cable is just to hand, advising work done during September:—"295 tons crushed, yielding 2264 ounces gold, and 1008 ounces from tailings."

GELDENHUIS MAIN REEF.—Result of September crushing:—2927 tons crushed, yielding 1025 ounces of gold; 1860 tons treated by cyanide, 402 ounces of gold; total, 1137 ounces of gold; profit for the profit, £796.

GELDENHUIS DEEP (LIMITED).—The following cable has been received from the mine manager:—"Mill ran 24½ days. Crushed from mine 14,080 tons; development dump, 975 tons; total, 15,055 tons, yielding 3506 ounces. Cyanide treated, 9720 tons, yielding 2009 ounces. Total yield, 5515 ounces. Mining profit for month, £1250."

GRASKOP.—Return from the mine for the month of September:—"Ore treated 740 tons, yielding 255 ounces of gold. Total yield January 1 to September 30 1931 ounces."

GOLDEN ARROW.—The company's superintendent, Captain N. M. Howitt, cables under date 6th inst.:—"Water increasing. Water giving much trouble."

GEM OF CUE.—The directors have purchased a 10 head battery complete, now within 2 miles of the mine. The purchase of the Stawell property has also been completed.

GELDENHUIS ESTATE AND GOLD.—A cablegram has been received from the head office, Johannesburg, stating the following results for last month:—"Crushed, 15,931 tons; obtained from mill, 4513 ounces of gold; obtained from concentrates by cyanide, 347 ounces of gold; obtained from tailings by cyanide, 1445 ounces of gold; total, 6305 ounces of gold."

HANNAN'S KING (Brownhill).—Mr. A. G. Burge the company's engineer, cables from Perth (W.A.) under date October 1 (delayed in transmission):—"Arrived here safely yesterday. Statements and estimates hitherto made will be found correct. The Mount Charlotte lode is dipping into our ground; the ore is similar to the Brownhill lode."

HANNAN'S SIR JOHN FOREST.—Cable to hand from Mr. J. Woolcock, the mining manager:—"Since last report the main shaft has been sunk a further 7 feet, total from surface 200 feet. The western crosscut has been advanced 18 feet, total from shaft 72 feet.—No. 3 shaft. The crosscut east has been extended 14 feet, total 32 feet from shaft."

HAMPTON PLAINS ESTATE.—A cablegram has been received confirming the discovery referred to by Mr. Allen H. P. Stoneham as "Majors" at the general meeting. The cablegram is as follows:—"Hampton Gold Fields selection, Block 53. Have struck rich ore on the 70 feet level. The width of the reef is 3 feet, assaying 10 ounces."

HANNAN'S STAR.—The following cablegram has been received from the mines' superintendent:—"The ore body continues to improve in quality in the north end level James' shaft; have had samples assayed by Tinley at Kalgoorlie with following results—12 ounces 16½ dwts. per ton, 14 ounces 16 dwts. per ton. I have let a contract to sink a shaft £3 per foot."

HANNAN'S BLOCK 45.—In the cable which we published last week, the assay value of the ore should have read "22 ounces per ton," not "12 ounces per ton."

HANNAN'S NORTH CRESUS.—The following cable was received by the above company from Coolgardie on the 3rd inst.:—"Have returned from making the examination of North Cresus. First shaft 120 feet crosscut to the east 130 feet. Second shaft 100 feet crosscut to the east 90 feet. Crosscut to the west 160 feet being continued. The adjacent mine (Cresus) is opening up splendidly. Will leave to-morrow for mine again. Will then send full details. I consider it a most valuable property.—G. P. Hurst."

HENRY NOURSE.—Result of operations for September:—"Mill ran 28 days; crushed 8554 tons; treated 5570 tons cyanide; total, 7015 ounces produced."

IVANHOE.—Cablegram from Melbourne, dated October 3:—"During the past four weeks have crushed 215 tons for a yield of 832 ounces of gold. This ore is from the middle and east lodes."

JUMPERS.—A cablegram has been received from the head office, Johannesburg, stating the following results for September:—"Crushed, 11,449 tons; obtained from mill, 3873 ounces of gold; from concentrates, equal to 781 ounces of gold; from tailings by cyanide, 860 ounces of gold; total, 5514 ounces of gold. Profit for month, £3700."

JUBILEE.—Last month's return:—2021 ounces obtained from 4988 tons. The tailings realised 631 ounces.

KOFFYFONTEIN.—We are informed their returns for the month of September are 4650 carats.

KABOONGA.—The following cable has been received:—"Borehole through 13 feet 6 inches. Heavy influx of water, quite satisfactory, proves have struck upon great lead. We are now pumping 570,000 gallons of water per 24 hours, so as to draw. Prospects are undoubtedly good."

KOMATA QUEEN.—The directors have received the following telegram from the manager, viz.:—"The country rock is of a highly favourable character. The ore in the face improves as we go on."

KAPANGA.—The directors have received the following telegram from the manager, viz.:—"In the 940 reef shows gold freely. 1000 crosscut to the south-east extended 10 feet. New developments most encouraging. The stopes are looking better. Corby shaft has been sunk 6 feet; prospects encouraging."

KOMATA REEFS.—The directors have received the following telegram from the manager, viz.:—"Argall's reef has now developed a large body of high grade ore. General results are satisfactory."

KATHLEEN CROWN.—The directors have received the following telegram from the manager, viz.:—"The shaft is being sunk through hard rock. Hoisting engine ready next week. No. 1 reef showing specks of visible free gold."

LANGLAAGTE ESTATE AND GOLD.—Production for September (by cable):—"Mill. Stamps running, 160; ore crushed, 20,219 tons of 2000 lbs.; gold retorted, 6491 ounces. Tailings, cyanide process. Tons treated, 11,000 tons of 2000 lbs.; gold recovered, 1707 ounces. Concentrates, cyanide process. Tons treated, 490 tons of 2000 lbs.; gold recovered, 1499 ounces. Total gold recovered, 9697 ounces."

LANGLAAGTE STAR.—Production for September (by cable):—"Mill. Stamps running, 60; ore crushed, 2320 tons of 2000 lbs.; gold retorted, 589 ounces. Tailings, cyanide process. Tons treated, 4230 tons of 2000 lbs.; gold recovered, 604 ounces. Concentrates, cyanide process. Tons treated, 200 tons of 2000 lbs.; gold recovered, 294 ounces. Total gold recovered, 187 or more."

LE CHAMP D'OR FRENCH.—The following cablegram has been received from the manager at the mine at Johannesburg:—"During the month of September mill worked 25 days; crushed 6800 tons, yielding 1980 ounces; cyanide treated 4400 tons, yielding 749 ounces; total, 2729 ounces."

LAKE VIEW CONSOLS.—The following cablegram has been received from the mine superintendent:—"Crushed 675 tons, obtained 2003 ounces of gold; 10 stamp mill ran 500 hours."

MENZIES CONSOLIDATED.—Cable information has been received from Mr. Weekley, the manager at the mines, to the following effect:—"Princess Eva claim. Shaft, 100 feet level, driven north 64 feet, lode 3 feet wide, medium quality. Vigorous prospecting from several places being carried on.—Prince May claim. Plata at the 100 feet level and 160 feet level completed. Shall proceed to develop lode at both levels.—Prince Ada claim. Crosscut at 100 feet level 140 feet. No change to report here.—Prince John claim. Crosscut to the east in 100 feet. Crosscut to the west 15 feet.—St. Albans group."

West shaft, 210 feet (ground), continues very hard and dry.—Battery. Boiler arrived."

MENZIES GOLD REEFS.—Cable information has been received from the manager to the following effect:—"Clean up No. 8. Hours run, 367; tons crushed, 372; yield smelted gold, 407 ounces; tailings assay, 11 dwts. Stone from Friday water shaft and underlay shaft. The total number of tons crushed to date, inclusive of the above, is 1713; yield, 2321 ounces gold."

MENZIES CRUSOE.—Cable information has been received from the manager at the mines to the following effect:—"Clean up No. 7. Hours run, 555. Tons crushed, 500. Yield smelted gold, 948 ounces. Tailings assay, 10 dwts. Stone from north shaft, E shaft, and F shaft." The total number of tons crushed to date, inclusive of the above, is 1890; total yield, 4520 ounces gold."

MCKENZIE GOLD MINES.—The undermentioned cablegram has arrived from Mr. Frank Nicolas, the company's consulting engineer:—"Glenloth. Water level has been reached at 157 feet."

MEYER AND CHARLTON.—Crushed 9755 tons, gold won 2795 ounces, extracted from tailings 1454 ounces, total 4249 ounces; profit for month (September) £4066.

MOUNT LYELL.—The following cable, dated the 7th inst., has been received by this company's London office from its head office at Melbourne:—"Second furnace running satisfactorily; company ordering additional plant in order to increase the output to 500 tons daily."

MONASTERY DIAMOND.—Cable received 8th inst. states:—"121 loads yielded 24 carats."

MOUNT LYELL.—The following cable, dated 3rd inst., has been received by this company's London office from its head office at Melbourne:—"One furnace treated 2390 tons ore during the month ending September 24. Assay value of ore—copper, 5·81 per cent.; silver, 5 ounces 6 dwts. per ton; gold, 3·7 dwts. per ton, resulting 297 tons converter matte containing copper, 147 tons; silver, 13,550 ounces; gold, 486 ounces."

MONTANA.—By cablegram from the mine the directors are informed that the total output for September was 6200 tons of ore which contained gold, 2160 ounces; and silver, 9050 ounces. The estimated realisable value of the same is \$49,100. Expenditure—Working expenses on revenue account \$34,500, outlay on developments \$6900, outlay on Blue Bird and Hickey Mine \$600, extraneous expenses \$1900, permanent improvements and machinery \$230, total \$44,100, estimated net result \$5000.

mysore—Telegram from the mine gives the return of gold for the month of September as follows:—"5060 tons of quartz produced 7736 ounces of gold. 4300 tons of tailings produced 1400 ounces of gold. 1677 tons of tailings (cyanide process) produced 192 ounces of gold. Total production for the month 9328 ounces of gold."

mysore REEFS (Kangundy).—The following cablegram, dated October 5, has been received from the mine:—"550 north, width of lode 1 foot 6 inches, assaying 1 ounce 3 dwts. per ton."

mysore WEST AND mysore - WYNAAD CONSOLIDATED.—The manager cables the result of crushings for the month of September as follows:—"Tank Block. After a mill run of 598 hours, 1400 tons, 285 ounces of gold."

NEW CRESUS.—Production for September, 63 stamps, 23 days, 2109 ounces.

NEW CHUM GOLD MINES.—The directors have received the following copy of a cable to hand from the mining manager:—"Since last report the winze from No. 7 level, 110 feet east of main shaft, has been sunk 30 feet, total depth 50 feet; at bottom of winze have cut several branches of quartz. The reef in No. 6 level driving south is improving in quality."

NEW QUEEN.—The London office has received the following cablegram dated Charters Towers, October 7:—"There is a very favourable change in vertical shaft cutting into formation."

NEW CHIMES.—The result of last month's crushings yielded 1774 ounces of gold.

NEW RIETFONTEIN ESTATE.—The Johannesburg Consolidated Investment Company announce receipt of the following cable from the above company:—"Production for September, 1948 tons, 50 stamps, 23 days."

NEWHOUSE TUNNEL.—The following cable has been received from Denver:—"Denver, October 3. We have driven during the past month 190 feet."

NIGEL.—Last month's crushing yielded 1058 ounces battery, 1009 ounces cyanide; total, 2067 ounces.

NEW GUSTON.—The following cable information has been received from the mine:—"Output for August month, 82 cars (say) 820 tons; value estimated, \$6850; mine expenses, \$8950; expended on exploration works, \$1300. We have also expended \$2250 upon machinery, and have laid in stores for the winter amounting to \$1900."

NEW ZEALAND CROWN.—During the month of September the battery, including 20 additional stamps, has crushed 1017 tons of ore, being double the output of the previous month. The exact value of the bullion will be known in a few days. Tons mined during the month, 920. Mr. Daw, the manager, states in his cabled report that the body of ore is increasing in width, and that the mine is looking well. Orders have been given to increase the water race from 30 to 60 head.

NEW HEIDELBERG-ROODEPOORT.—The Johannesburg Consolidated Investment Company (Limited) announce receipt of the following cable from the above company:—"Will commence crushing on Saturday, October 10."

NEW QUEEN.—The company has received the following cablegram, dated Charters Towers, October 9:—"Drilled into quartz, vertical shaft."

NEW HERIOT.—Last month's crushing yielded 6011 ounces.

NUNDYDROOG.—This company has received a telegram from the mine giving the return of gold for the month of September as follows:—"3900 tons of quartz produced 3986 ounces of gold; 640 tons of tailings produced 94 ounces of gold. Total production for the month 4080 ounces of gold."

NORTH CHARTERLAND EXPLORATION.—This company has received cable advice from their administrator, Lieutenant Colonel R. Gardner Warton, that the mining engineers of the company have discovered a good body of payable ore at Misale, and that pannings taken therefrom show excellent results, and are likely to improve.

OMNIUM (O'Shea's Leases, Niagara, W.A.).—A cablegram has been received from Messrs. Bewick, Moreing, and Co., of Coolgardie, who are managing the above leases for joint account of this company and the Continental and Western Australian Trust (Limited) as follows:—"Have received telegram from Mr. H. P. Woodward. We have struck reef, shaft No. 4, the width of the reef is 2 feet. We are not yet through. Pannings 3 ounces per ton."—Office note. Shaft No. 4 has been sunk in the southernmost of the two leases, where no development whatever had been made before. The result of assays from the northern lease was announced last week.

OREGUM.—The London office has received a telegram from the mine, dated October 3, giving last month's return of gold as follows:—"5778 tons of stone produced 4212 ounces of gold; 5207 tons of tailings produced 800 ounces of gold; total production for the month, 5021 ounces of gold."

QUEENSLAND MENZIES.—The London agents, Messrs.

R. Clayton and Co., 88, Bishopsgate-street Within, E.C., have received a cablegram advising the result of a trial crushing of 41 tons; average stone 297 ounces.

ROODEPOORT CENTRAL DEEP.—The main shaft is down about 185 feet. The water has been taken up and conveyed into a sump, and is now lifted to surface by a steam pump. The permanent head gear is in place, and the workmen are engaged in erecting the framework of the hoisting engine and boiler houses.

ROODEPOORT UNITED MAIN REEF.—Result for September:—"70 stamps crushed 7625 tons, produced 3250 ounces, cyanide 912 ounces. Total 4162 ounces. Profit £3600.

ROBINSON SOUTH AFRICAN BANKING.—The Association of Mines of the South African Republic have cabled to their London agents, the Robinson South African Banking Company (Limited), that for the month of September an output amounting to 35,429 ounces was obtained by the following companies:—Roodeport United Main Reef, Meyer and Charlton, Princess Estate, Van Ryn, George Goch (Amalgamated), Wemmer, Langlaagte Estate, Block B Langlaagte Estate, Langlaagte Star, New Midas Estate. This compares with 38,937 ounces in the preceding month.

SANTA ANNA.—The following cable has been received:—"Produce for the month, 173 ounces from 750 tons."

SHEBA.—The following cablegram has been received from the general manager for the month of September:—"10,295 tons of ore, 4875 ounces. 2650 tons of tailings, 1508 ounces 81 tons of concentrates, 683 ounces. Total, 7066 ounces. The mill ran 21 days; water very scarce."

SALISBURY.—Last month's crushing yielded 2150 ounces.

SOUTH BENDIGO.—The following cable is to hand from the manager:—"Since last report the main shaft has been sunk 8 feet, total from plat 250 feet, and from surface 1040 feet. Operations delayed owing to accident to machinery. Am repairing."

SOUTHERN NEW CHUM.—The subjoined cable information is to hand from the mining manager:—"Since last report the main shaft has been sunk 24 feet, total from plat 231 feet, and from surface 391 feet. In the No. 1 level am driving north on the Lawrence reef. Reef is small but is well defined vein, showing free gold."

ST. JOHN DEL REY.—The following telegram has been received from Mr. Chalmers:—"Produce month of September, 37,000 oitavas, equal to 4265 ounces troy, value £14,300. Yield per ton, 5·8 oitavas (66 ounces troy)."

TAMWORTH.—The following telegram, dated October 5, has been received:—"85 ounces of gold. This yield is from 23 tons crushed during 5 days. Should suggest that the crushing be continued one month. A considerable amount of dead work has been necessary. Will be completed within next few days. The mine looks even better than I anticipated."

TOLIMA.—The following cablegram has been received from the acting superintendent at the mines:—"September estimated returns, £4900; September estimated profit, £1100." In this return fine silver is valued at 2s. 9d. per ounce.

TWIN LAKES PLACERS.—The manager reports the following results for September:—"Cubic yards of gravel washed, 90,000 ounces; square yards of bedrock exposed, 15,000; square yards of bedrock cleaned, 22,000; estimated value of bullion produced, \$12,000."

UNITED AUSTRALIAN EXPLORATION.—Cablegram from Mr. Arthur S. Boucher, the superintendent engineer, dated October 7, Mount Magnet leases (Murchison District, Western Australia):—"Wheel of Fortune, 100 feet level opened up strong chute(s) of ore 72 feet long, reef is 3 feet wide, assaying 2 ounces 5 dwts. per ton, face looks very well, dump 250 tons, assaying 3 ounces per ton.—Long reef, 100 feet level opened up fair chute(s) of gold, making total length of 180 feet, reef is 18 inches wide, assaying 1 ounce per ton."

VICTORIA AND QUEEN.—Messrs. A. Durant and Co., the London agents, have received the following cablegram from the head office at Charters Towers:—"Have finally cleaned up after crushing 62 tons of quartz; gross yield of 113 ounces of gold, making a total crushing of 818 tons for 1927 ounces of gold; approximate value, £6700. Have also cleaned up after crushing 88 tons second class ore for gross yield of 95 ounces of gold."

WARD GOLD.—Cable received:—"Shaft has reached a depth of 197 feet; expect ship first class ore this month."

WAHI GRAND JUNCTION.—The manager cables Oct. 6:—"Wahi West prospecting shaft.—South drive. Struck a strong lode; further particulars will be telegraphed later on."

WESTERN AUSTRALIAN DEVELOPMENT CORPORATION.—The following cablegram has been received from Mr. Frank Nicolas, our consulting engineer:—"Dorothy. Have cleaned up after crushing 50 tons of quartz; gross yield, 28 dwts. per ton, 70 ounces. Assay of tailings, 18 dwts. per ton, making 2 ounces 6 dwts. per ton, and giving a return of 115 ounces in all." A further cablegram states:—"Dorothy. Reef proved to a depth of 120 feet."

WAHI GRAND JUNCTION.—The manager cables October 9:—"Lode is opening out well. Now in 6 feet."

WAHI SILVERTON EXTENDED.—The following cable has been received from the local board at Auckland:—"The manager reports there is a great improvement in driving east. Thinks that chute of ore is quite new. Have had six samples assayed from the face, with the following results:—Assays average £7 5s. per ton. The width of reef is 7 feet. Samples picked ore £165."

GOLD MINING IN BRITISH COLUMBIA.

(Continued from page 1252.)

Centre Star and Idaho.

A REA, about 40 acres; title, Crown grants. Located in 1890, immediately east of the Le Roi and War Eagle, owned by the Centre Star Gold Mining and Smelting Company. President, P. A. Largy; secretary, T. G. Benham, Butte, Montana; general manager, Oliver Duran, Rossland. Capital stock, 500,000 shares, at \$1 each. This property is considered to be one of the best in the camp. Across the east end of the Centre Star claim runs in a northerly direction Centre Star Gulch, on the east side of which, in a diorite bluff, is exposed a ledge 30 to 50 feet wide, covered with the heavy iron-stained rock or true iron capping from the decomposition of the sulphides here present in mass. On either side of this ledge is a smaller one. The main tunnel enters on the outcropping of this main ledge on the west side of the gulch, and runs south-west about 1100 feet along the lead, heading for its objective point the Le Roi east end line. Several large bodies of low-grade ore are traversed, one of nearly massive sulphides or pyrrhotite being 147 feet long and 14 to 16 feet wide, while another is nearly 70 feet wide. From this tunnel crosscuts are being run to the side lines, and in one to the north, the north vein was cut at 280 feet where it is 4 to 6 feet wide of good ore, with a larger percentage of copper than is found elsewhere in the mine. At 180 feet in the crosscut to the south, the south vein is cut, but there it is small. Mr. Duran states that besides the large amount of low grade ore now in sight, there is much good shipping ore, but none will be shipped until the mine has been thoroughly explored and opened up for work and the conditions for shipping and smelting are the best. Already nearly 2000 feet of work have been done, and the ore taken out is being stored in a large dump for future use. There is at the tunnel mouth a good blacksmith shop and engine room, in which a 7-drill Ingersoll-Sergeant air compressor and an 80 horse power boiler, now running three drills in the mine with which 1600 feet of work have been done since December 5, 1895. Ventilation is secured by running pipes fitted with compressed air exhausts from the face of work to a shaft sunk on the lead and tapping the tunnel 410 feet from the mouth. After further work has been done a large shaft will be sunk, and a heavy hoisting plant put in, probably near the west end of the claim, and both railways will be easily available. Work will also be done soon to exploit the Idaho ground into which the large exposure mentioned leads, and has been traced through into the Enterprise claim on the east. Number of men at work, 23.

Josie, Monte Cristo, St. Elmo, Mayflower.

These four properties have been incorporated under four distinct companies, for all of which Mr. F. E. Snodgrass, Spokane, is secretary, and Mr. Frank C. Loring mining engineer. The capital stock of the Josie is 700,000 \$1 shares; of St. Elmo, 1,000,000 shares at \$1 each; Monte Cristo, 1,000,000 at \$1, and the Mayflower, 1,000,000, at \$1 each share. Under the careful supervision of Mr. Loring all these properties are being economically and systematically developed. The claims all have Crown grant titles.

The Josie is situated along the north side of the Le Roi, and south of the War Eagle, and through its length can be traced on the surface two veins, the "main" and the "north," that have been opened up by several workings. The main tunnel was begun in ore that was soon cut off, and run in along a smooth wall, strikes north east by south-west, dip northerly until a fault was encountered with a throw to the south, beyond which extends a stop for 90 feet that runs up 30 to 40 feet, with ore 1 to 4 feet thick, and connects with the surface by a shaft. At a point about 250 feet from the tunnel mouth, in a short crosscut, a diamond drill hole to the north at 107 feet located ore supposed to be the north vein. Beyond this point the tunnel runs for about 100 feet between two walls, nearly vertical and parallel, 5 to 6 feet apart, with ore in the roof, sometimes 3 feet of solid pyrrhotite, but much sulphide is also scattered through the diorite and calc spar. Another faulting to the south is now met, and at this point a crosscut is driving north to connect with No. 4 shaft that is being sunk in ore in the north vein, the top of which shaft is 160 feet above the tunnel. A crosscut south shows some ore for 12 or 15 feet, while the face of the tunnel, in 480 feet, showed a little mineral. On the surface is a stop about 120 feet long, 3 to 4 feet wide, from which considerable ore was taken, and at the mouth of the tunnel in the ore there found is being sunk a two-compartment shaft, now 80 feet deep, and in ore which is being sorted and shipped with other ore in the mine to Tacoma. In the engine house, 30 by 60 feet, is a 7-drill Ingersoll-Sergeant compressor, and an 80 horse power boiler, a good gallows frame, connections with the Cameron sinking pump, and a 30 horse power boiler. Value, \$12,000. A crosscut tunnel is now being run from the Le Roi boundary, 250 feet, to tap the shaft. Number of men, 30; superintendent, Mr. Long.

The St. Elmo is a full claim, 600 feet by 1500 feet, on the south slope of Red Mountain, having near the west end a large exposure of very quartzose rock containing also calcite, zinc, blende, and iron and copper pyrites. Just east of this is a 100 feet tunnel to the north-west, in a fine grained diorite (?) with much iron and copper pyrites disseminated through the mass. Near the east end is the main tunnel, 225 feet long, with crosscut, the tunnel running along a wall east and west along which some ore has been taken out. The position of this claim is clearly indicated by a prominent bluff of rock deeply stained with red iron oxides, and the vein traversing the Monte Cristo, the Cliff and St. Elmo Consolidated, is believed to run through this ground. Number of men at work, five.

The Monte Cristo is another full claim, 600 by 1500 feet, located on the west slope of the Monte Cristo Mountain, 1 mile west of Rossland, and has running through nearly its entire length one of the most strongly defined ledges in the camp. The very fine grained country rock is little iron-stained itself, but on the ledge there is a heavy iron capping which, on being opened up, discloses 8 to 12 feet of solid pyrrhotite. Six or seven openings have been made, and work is now being done in a prospecting shaft to be 60 feet deep, tunnel No. 2, about 85 feet, with face all in a coarsely crystalline pyrrhotite, but having in the bottom a better grade of ore containing copper pyrites and calcite, and in tunnel No. 1. This tunnel is to be the main point of entry, and is being driven of a good size, well timbered at the mouth with sets 5 by 6 by 7 feet, having at the time of visit a full face of ore. So far, this large shute of sulphides has proved valuable, assaying from traces to \$2 or \$3 in gold, but with the advent of a new character of ore in tunnel No. 2 much better assays are being procured, and the development of this claim is being watched with great interest. To expedite work a 7-drill Ingersoll-Sergeant compressor and an 80 horse power boiler are being put in near the small creek 200 feet below, and then the main tunnel will be rapidly advanced along the vein into the mountain. Course of vein, east and west dip, 70° to 75° north. Number of men, 20. Superintendent, Mr. F. H. Oliver. A spur 1/2 mile long can easily be run from the tramway to a point below tunnel No. 1.

The Mayflower is in the South Belt, or 1 mile south of Rossland, and the present work is being done in a tunnel, now 100 feet long, run in at track level, upon a vein that was exposed by a rock-cutting on the tramway. This vein, running about east and west, dip north 70° to 80°, showed for 30 feet along the tunnel carbonates, until the solid ore came in, or solid iron pyrite, with a large proportion of galena, also some zinc blende and calcite, carrying the chief value in silver, or in a shipment netting \$16, \$10 was silver, \$10 gold, and \$6 lead. The vein varies in width from a few inches to 3 feet, and can be traced by openings through the claim, while a parallel vein to the north has been more or less developed. The carbonates are sacked, and some have run as high as \$250, and the ore taken out is being piled by the track and sent down in lots to the smelter at Trail. Number of men employed, 10. Superintendent, F. H. Oliver.

Number of the Le Roi and War Eagle lies a number of claims on

which work is being done, as at No. 1 Surprise, Gertrude, Monita, and Pilgrim, and on the Mug Wump, that lies just north of the Iron Mask, a plant is now being put, under the management of Mr. J. Young, to exploit this property with the diamond drill.

California.

Area, 52 acres; title, Crown grant. Location, 1500 feet west of the Le Roi and Josie Miner, on south slope of Red Mountain, owned by the California Gold Mining Company, Spokane. President, Hon. R. F. Pope, Cookshire, Quebec; secretary and treasurer, J. P. Graves, Spokane. Capital stock, 2,500,000 shares at \$1 each. Near the southern end of this claim is a 50 feet tunnel running north into barren country rock, and higher up are several shallow cuts and trenches. On all this claim the rock on the surface is very much iron-stained and decomposed, but no work has been done as yet disclosing the veins that are supposed to pass through this property. Mr. Frank C. Loring, one of the best mining men in the camp, will also direct the development work, which will consist at first of extensive surface work, trenches, and open cuts, &c.

Nickel Plate.

Area, about 21 acres; title, Crown grant. Location, immediately south of the Centre Star and Idaho. This claim, and the small fraction One or No-go, are the property of the Nickel Plate Mining Company, of Salt Lake City. Capital stock, \$500,000 in \$1 shares. Superintendent, W. J. Williams, Rossland. Considerably careful development work has been done on this property, a shaft 150 feet having been sunk along a smooth wall with some ore present. At the 100 feet level a drift has been driven over 100 feet east and 110 feet west (July), showing more or less ore, dip 60° north. From the shaft a crosscut has been driven 285 feet north through the diorite, intersecting at 110 feet a shute of ore, which, in a stope 25 feet high, is 2 to 3 feet wide, of solid sulphides, consisting of pyrrhotite and copper pyrites, stated to be of high grade. This ore is also found scattered through this rock or gangue, and over 100 tons are on the dump awaiting better shipping facilities, as the line of railroad is surveyed to cross the claim near the shaft that will give easy access to the smelters. The crosscut will connect with the air shaft, which is now being sunk near where on the surface some ore is showing, and, after further development work proves up the value of the claim, a large and complete hoisting plant will be installed, the present plant—a 12 horse power boiler, blower, and a Knowle's sinking pump—being sufficient for the present exploratory work. Number of men employed, 22. In Centre Star Gulch a shaft is being sunk on a vein that outcrops there, and ore is being taken out.

(To be continued.)

MINING IN NEW ZEALAND.

MINES STATEMENT.

By the Hon. A. J. CADMAN, Minister of Mines.

(Continued from page 1255.)

Metalliferous Mines.

VERY little has yet been done in the colony to prospect and develop mines other than for gold and silver. The only exports last year of metalliferous products other than gold and silver were 54 tons of antimony ore, 210 tons of manganese ore, and 62 tons of mixed mineral, representing an aggregate value of £2891.

Workings are still being carried on at Ohaeawai in the cinnabar deposits, and machinery and appliances are being erected to collect the metallic quicksilver, which is intermixed amongst the surface material, and also to distil the quicksilver from any ore that can be mined from open workings. The large quantity of gas in the ground where these cinnabar deposits exist, together with hot water, will, I fear, preclude mining the quicksilver ore in this locality to any great depth.

Petroleum.

The boring for petroleum oil is still being carried on near New Plymouth. A little oil was found in the bore first put down close to the breakwater, but it is stated that sea water came into the bore, which caused it to be abandoned. Recently a new bore, to a depth of 1675 feet, has been put down a little nearer New Plymouth than the breakwater, but no oil of any consequence has yet been struck, but it is said that a large quantity of gas is now coming from the bore. This gives indications that petroleum will yet be found, but whether it will be obtained in payable quantities for working, time alone will determine.

Kauri Gum.

Notwithstanding the large quantity of kauri gum exported every year, there was very little diminution in the amount exported last year, the quantity being 7425 tons, as against 8338 tons for the previous year. Although there was 913 tons less exported last year, the value exceeded that of the former year's produce by £14,190, the value of last year's produce being £418,766, which gives an average value of about £56.8 per ton, whereas for the previous year the average value was £48 10s. 5d. per ton.

This industry affords a livelihood to a large number of both Europeans and natives; but the average earnings of persons employed in digging gum cannot be ascertained. No doubt the time is approaching when the gum will be exhausted, but a considerable period will yet elapse before this takes place. The total quantity of kauri gum exported since 1853 is 175,803 tons, having a value of £7,683,529.

Roads and Tracts.

Notwithstanding the large expenditure already incurred in the construction of roads and tracks to open up the country in mining districts, to enable prospecting, and the development of the mines, to be carried on, the recent revival in mining, and the amount of capital coming into the country to be invested in mining ventures, will require further roads and tracks to be constructed to open up the back country: this will necessarily entail much expenditure before communication with the various claims recently taken up can be effected.

The total expenditure by the department during the last 14 years on roads and tracks for the development of the mining industry amounts to £174,833 in direct grants, and £79,242 in subsidies to local bodies.

Water Races.

The construction of water races to bring a larger supply of water to work the alluvial drifts is one of the most important works in connection with the expansion of the mining industry. As I have already observed, there are large areas covered with auriferous drifts which will prove remunerative if a sufficient quantity of water can be obtained to work them on an extensive scale. The number of men employed in the alluvial workings will always be in proportion to the quantity of water available. In order to encourage the construction of works of this nature, where it is proved that a fair supply of water can be brought on to ground that will give employment to a number of men, a subsidy of one-third of the cost is granted under regulations to private parties for the construction of dams and water races. During last year a subsidy of £800 was authorised towards the construction of a water race from the Roaring Meg Creek to the terraces at the head of Healy's Gully, on the north side of the Grey River, between Blackball and Moonlight Creek. A subsidy was also given towards the cost of survey of a water race from Randall Creek to Nelson Hill.

The water races constructed by the Government, and worked directly under the control of the Mines Department, are the Waimea-Kumara and Mount Ida water races. The gross value of the sales of water from the Waimea-Kumara water race last year amounted to £4902, while the expenditure on maintenance was £2713; leaving a net profit on the workings of £2189. The value of the sales of water from the Mount Ida, including the Blackstone Hill race, amounted to £1326, while the expenditure on maintenance was £1333. This leaves a direct loss of £73 on the working of these races during the last year. The large expenditure last year on the Mount Ida water race was due to the very severe winter and heavy fall of snow, causing slips in the sides of the race, which had to be cleared out and repaired before water was again admitted. Taking the Blackstone Hill portions of the water races by themselves, there was a net profit on the working of £102, which is equal to about 10 per cent. on their cost, which was £1037.

Prospecting.

Seeing the large area of auriferous country, both in alluvial ground and in quartz lodes, in the colony where scarcely any prospecting has yet been done, assistance has been given to prospecting parties wherever it was shown by either the Mines Associations or local bodies that there was a probability of success attending the operations, and where these associations or local bodies undertook to supervise the prospecting operations.

I have already alluded to the discovery of gold-bearing stones of 930 feet. This may be regarded as the greatest discovery due to prospecting work last year. A bore was put down from the bottom of the shaft, and quartz was cut showing a little gold. It may be stated that the gold in the lodes in this mine cut out at about 420 feet from the surface, and 500 feet of gold-bearing stone was found. This discovery will be the means of giving an impetus to other mining companies to test their ground at deep levels.

A subsidy up to £10,000 has also been applied for by the United Gold Mining Company, in the West Coast District, at the rate of £1 for every £2 to be expended by the company in accordance with the regulations for granting assistance towards prospecting at deep levels, but no definite decision has yet been arrived at, pending the receipt of details of the proposed work. As there seems to be a desire to dispose of properties to capitalists, in view of subsidies being granted by the Government, it is intended to carefully consider this aspect of the question before any subsidies are authorised under the regulations referred to.

As an evidence of the great interest at present taken in prospecting, I may mention that 22 licenses for prospecting outside mining districts have been issued since April 1 last, no less than seven of these licenses being issued for the Great Barrier Island alone, where also 13 extended prospecting licenses, authorised by the Act of last session, have been applied for to the Warden at Coromandel. Should a discovery be made of either gold or silver to warrant it, this island will be included in a mining district.

During last year £1726 4s. 8d. was expended in the different counties as subsidies towards prospecting—Coromandel, £206 4s. 6d.; Thames, £98 2s. 8d.; Manawatu, £1 16s.; Buller, £247 13s. 2d.; Grey, £59 14s. 3d.; Inangahua, £25 17s. 6d.; Westland, £625 16s. 4d.; Taranaki, £14; Southland, £77 1s. 6d.; Vincent, £73 2s. 8d.; Tairi, £282 1s. 10d.; and Ioway, £14 1s. 3d.

Geological Explorations.

During last year the mining geologist carried on geological exploration in the Fiord County, with the view of determining the different formations, as to the probability of minerals being found in that part of the colony, which has never been properly explored. The discovery of gold at Wilson River, Coal and Crayfish Islands, as well as on the mainland in the vicinity of Preservation and Chalky Inlets, has led many persons to suppose that a large gold field may be opened up there. As far as can be ascertained by the mining geologist, the auriferous belt extends for about 20 miles in length, having a width of 5 miles. This belt runs along the coast line from Kiwi Creek, about 13 miles south of Preservation Inlet to Chalky Inlet. To the east of this belt there is a granite formation, in which beds of argenticiferous galena exist. Geological explorations were carried on in this locality over an area of about 300 square miles; and a plan showing the different formations has been prepared, and will be found annexed to the departmental report for this year.

Geological explorations were also carried on in the Collingwood district. The chief examination in that portion of the colony being confined to the older auriferous gravels along the south-east side of the Aorere Valley, the largest development of these gravels being at the quartz ranges. A map has been prepared showing the area and formations where these auriferous gravels are deposited.

(To be continued.)

THE EDUCATION OF MINING ENGINEERS.—The President of the Midland Institute of Mining Engineers, Mr. G. B. Walker, delivered an address on "The Education of Mining Engineers" at a meeting of the Institute, held at Sheffield, on Saturday. Mr. Walker's opinion on the subject is entitled to respect, as he has a practical knowledge of the question with which he dealt, and is able to express his opinions with clearness. He remarked, in opening, that the coal trade of this country is hard pressed, and that Great Britain, in the matter of the coal trade, no longer possessed the supremacy. In view of the change in conditions, it is, in Mr. Walker's opinion, more than ever requisite that the mining engineer should have a very efficient, practical, and scientific training. In the struggle for life, those only would eventually survive who could most successfully bring to their aid the resources of science and highly-trained ability. Mr. Walker instanced the strides made by Germany in the development of her coal resources, and made a passing reference to the large measure of engineering skill and to the clever adaptation of means to ends by which the result had been obtained. The way to cope with German success was to copy German methods; and better technical education, more readiness to progress, and a scientific training were the first means to be employed, if we are to retain our commercial supremacy. A mining student, he submitted, should be trained in the art and practice of mining, in physics, chemistry, geology, electrical engineering, surveying, and mining jurisprudence. In each of these he should have a thorough, not a superficial grounding. He contrasted the mining classes at the Durham College of Science and the Yorkshire and Firth Colleges with what he described as the more complete systems of Belgium, France, and Germany, and advocated a complete system of technical education, with three years at a college to begin with, or, better still, two years at a colliery underground, three years at a technical college, two years at a colliery underground, and one year in a colliery office. A youth with such a training would be certain to be turned out thoroughly competent, and the course he suggested would be equal to that of France and Germany. He advised all those interested in the matter to appeal to the Government and the educational authorities for their help.

A YORKSHIRE COLLIERY CLOSED.—The Wharncliffe Silversmiths Colliery Company have given notice of their intention to close a portion of the Tankersley Colliery on account of losses on working. The miners told the

GOLD IN CHILE.

By B. BECKER, C.E.

ALTHOUGH in former centuries, as well as at the commencement of the present one, the fabulous countries of South America, Chile, and Peru were the richest producers of the yellow precious metal, it is a strange fact that these countries since then have almost sunk into oblivion as far as their wealth both in gold and silver are concerned.

This fact is the more astonishing, as I dare say we all in our boyhood have raved in excited dreams of the fabulous treasures of the "caziques" and "incas" and their mystic golden temples. And to let facts speak, I may only mention one of the few official documents which still exist, and refer to the gold production of Chile as much as two centuries after the conquest of the coast by the Spaniards. According to one such official document in the "Biblioteca nacional de Santiago," the Viceroy Amat, only during the years from 1761 to 1775, remitted to the Spanish crown gold worth \$71,677,526, or about £14,000,000 sterling. Even now, with the booming days of the South African golden harvest, the given figure speaks for itself. As a matter of fact, Chile is rich in minerals of many kinds. It has silver, copper, lead, zinc, manganese, coal, and last, not least, its nitrate production is so notorious that it needs no further mentioning. Suffice it to say, that the nitrate alone employs many millions sterling of British capital in this country.

Geography.

A strip of land pinched in between the Cordillera and the Pacific Ocean, with a total length of more than 37° of latitude, or (say) 2200 miles (about equal to the distance from Edinburgh to Cairo, Egypt), Chile may best be divided in three zones:—

The Northern, the Central, and the Southern zones.

The northern zone reaches from Tacna to Coquimbo.

The central zone from Coquimbo to Concepcion.

The southern zone from this place to Cape Horn. All three zones have produced, and partly still produce, or could produce, more or less considerable quantities of gold. The northern zone distinguishes itself by the almost entire lack of water and, consequently, of vegetation; in fact, it may be called, and really is, a desert.

The central zone has more water and vegetation, and the plains generally are cultivated by irrigation, while the hills generally are barren, facilitating geological investigation.

The southern zone possesses more or less luxuriant vegetation and abundance of water. Numerous glaciers of considerable extent and power reach often down to the seashore, and while the northern zone is sub-tropical, and the central zone has a temperate climate, the southern zone has a climate more or less like the Norwegian.

Generally speaking, all the three zones possess a dry and healthy climate.

Topographically the country consists of three ranges of hills divided and separated by the corresponding valleys. The coast range, the central range and the main Cordillera, are the backbone of the South American continent. It is evident that these three mountain chains are not always and everywhere equally well defined; in some places they are more typical than in others, and they are neither always parallel. Deep transverse valleys often cut through these ranges, and connect the parallel longitudinal valleys with each other, thus opening the passage for the Cordillera waters.

The two northern zones on account of the scarcity of rainfalls (in Coquimbo, f.i., it rains only twice or three times per annum, in Iquique never) derive their water supply mostly from the underground currents which are generated by the melting snow of the Cordillera, and which currents gradually seek and find their way down to the Pacific Ocean. However, in the central zone, notwithstanding the scarcity of rainfalls, many small rivers convey the Cordillera waters also visibly and superficially. The southern zone has well supplied, however, short rivers.

Geologically, the southern part of Chile has not at all, and the central and northern zones only insufficiently, been explored as to be able to give exact general data. However, it seems that in the northern zones the coast range consists of crystalline schist, particularly gneiss, hornblende mica, and limestone formation, often intersected by through bursts of granite and diorite. According to Darwin ("Geological Observations of South America") the tops of the Cordillera consist of powerful caps of porphyritic agglomerations formed under water pressure by the eruptions of submarine volcanoes. It is a fact that cephalopods, trilobites, and brachiopodes have been found in heights of 14,000 and 15,000 feet above the Pacific level.

The mentioned eruptive formations are often covered by powerful red sandstones and calcareous slates, which by decomposition have formed thick beds of marl and other diluvial deposits in the deeper places.

The formation seems to belong to the Devonian and Silurian age, although anthracites have hitherto not been found, which fact may be explained by the gradual elevation theory of the formerly submerging surface of the country. However, it would lead me too far to give a detailed geological description of the country, for which besides I am not prepared.

Commercially, the country may best be divided into two zones only—the south and north, or the agricultural and the mining zone. The limit between the two may be taken at the latitude of Santiago, the capital of the country. This is about 33° of southern latitude, and this division of the country in two zones is the customary one.

Almost all the traffic is done by direct European steamers or by coasting, numerous steamer lines running up and down the coast, which has numerous good, or at least sufficiently good, ports, viewing the really "pacific" character of the ocean. Transportation up-country is effected by troops of mules and donkeys where railways or cartroads are not available, and the cost may be taken at about 3 contavos per 100 kilogrammes per kilometre, or about 9d. per ton per mile. This figure, of course, is subject to variation according to local conditions, but it may be taken an average in the centre part of Chile. The total cost of the country not averaging in excess of 100 miles, and most of the mining districts not being distant from the coast more than 20 to 50 miles, the transportation of goods and machinery, unless for exceptional reasons and extraordinary heavy pieces, is not very expensive.

The country now has a sound monetary system on the gold basis, and the peso is worth 18d. (exchange is 17d.) Good miners are abundant in the country, and the wages in the south and centre vary from 80 cents to 120 cents per diem, or (say) 1d. to 1d. 9d. In the north the nitrate fields have spoiled the wages, paying as much as 3 to 4 pesos per day, say 4s. 6d. to 5d. However, it must be remembered that life in the north is comparatively dear, while the centre and south are cheap.

(To be continued.)

The MYSORE R.R. (KANGUNDY) COMPANY (LIMITED) has sold the gold produced in August for £198 9s. 7d.

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

VICTORIA AND QUEEN GOLD MINING COMPANY (CHARTERS TOWERS.)

The following is the directors' half-yearly report to the shareholders:—We have the pleasure to lay before you our report on the working of your mine for the past six months. Similar to the previous half year, work has been confined to the western leg of the Victoria and Queen reef. No. 3 level has been further extended westerly 176 feet, making a total of 220 feet, carrying a reef the whole way averaging 15 inches of 2½ ounce stone. Two winzes have been sunk from this level, one on the main slide, which have been holed through to the stopes above No. 4 level. The reef averaged 14 inches of 3 ounce stone. The other winze, about 130 feet to the west, is now down 61 feet. The reef in this winze has pinched, but is improving in the bottom, and is now 9 inches thick of heavy mineral stone. No. 4 level has been driven from No. 3 crosscut 142 feet, carrying a reef averaging 15 inches, worth 3 ounces to the ton. The underhand stopes in this level show from 6 inches to 2 feet of 3 ounce stone. The stopes between this level and No. 3 carry an average of 15 inches of stone worth 2 ounces to the ton. No. 3 crosscut has been extended a further distance of 50 feet, making a total of 320 feet from No. 2 plat main underlie. Since passing No. 4 level the reef has continued very flat, and is still in the end of the crosscut. The stone is of good quality, but bony. A winze is being sunk from this crosscut down the slide to intersect the eastern leg of the reef, and is down 94 feet. It will probably have to go another 20 feet, at which point it should intersect the reef 230 feet ahead of the bottom of the main underlie shaft, which was discontinued on account of the poor quality of the stone. A winze has also been sunk down the slide for a depth of 100 feet at a point about 100 feet down the old underlie to intersect the reef on the western side of the slide worked in the Victoria and Caledonia Block Mine. A reef of about 8 inches thick was cut, but the water being heavy work has been suspended for the present. The straight shaft has been built out and the well hole cleaned for the purpose of starting a main crosscut which will require to go 400 feet to intersect the western leg of the Victoria and Queen reef. This crosscut can be driven very cheaply along the slide, and will enable everything to be trucked direct to the straight shaft from above that level. At the end of this crosscut it is proposed to place an air-winch to work the ground ahead of that point. This crosscut will also be useful to prospect the various reefs which it will intersect.—Machinery. A first-class rock-drilling plant consisting of a 16 inch Schram straight line air compressor and a 30 inches by 5 inches air receiver has been purchased and erected. A 3 inch pipe conveys the air to the 512 feet level, from whence it is distributed to the various parts of the workings. At present we are running three drills, two Ingersoll's, and one Little Hercules, which together with the compressor are working well. The low incline of the reef and the small size of the formation makes the ground favourable for stoping with rock drills, and it is anticipated a considerable reduction in the cost of breaking quartz will be effected, and development more rapidly pushed on. A trial crushing is now being taken out by a machine drill from the stopes above No. 1 level. If this can be made to pay there is a large piece of ground yet for stoping above this level. 12441 tons of quartz have been raised and crushed during the half-year, yielding 3822 ounces 12 dwts. 16 grains of gold worth £12,228 3s. 4d., being an average of 3 ounces 1 dwt. 10 grains per ton. From the half-year's profits two quarterly dividends of 1s. each have been paid amounting to £4800, in addition to the purchase and erection of the air-compressing plant.—Ventilation. This is good throughout the workings. Water. This had to be bailed regularly from the bottom of the main underlie, but has now disappeared and the shaft is quite dry. It is probably being drained by one of the adjoining mines, though it is difficult to see which of the neighbouring shafts should affect us more now than previously. Your directors have much pleasure in congratulating the shareholders on the improved prospects of the company.

THE MONTANA MINING COMPANY (LIMITED).

The report of the directors states that the revenue account shows a profit of £11,478 6s. 5d., which, with the sum of £6661 17s. 9d. brought forward from the previous half-year, gives a total of £18,140 4s. 2d. The payment of the two dividends on April 15 and July 15 absorbed £16,428 4s., leaving a net balance of £1712 0s. 2d. to be carried forward to the next half-year. The expenditure during the half-year charged to capital account comprises:—Legal expenses in connection with the lawsuit, £67 1s. 4d.; final payment for purchase of an adjoining property, £172 16s. 6d.; total £239 17s. 10d. During the six months ending June 30 last, the mills reduced 37,180 tons of ore, which yielded in bullion bars and concentrates (on assay coinage value) \$385,051, equivalent to \$10·36 per ton. The actual realised and realisable value of the ore amounted to \$328,533, the difference on the coinage value being \$56,518 or 2·27 per cent. on the gold, and 49·10 per cent. on the silver produced. The average net realised and realisable value of the ore treated was, therefore, \$8·84, (say) £1 16s. 6d. per ton. The proportionate money value of the precious metals contained in the ore was gold 84·19, and silver 15·81 per cent.

NEW ZEALAND MINING TRUST.

The directors of this company have just issued a circular in the form of a memorandum accompanying an invitation to the shareholders to subscribe for the remaining 50,000 shares of the 100,000 shares, which it was decided at the extraordinary general meeting held on July 15th to create, in order to increase the capital of the company, for the purpose of still further extending its operations. These shares are to be offered at the price of £2 per share, or £1 premium, 10s. of which is to be paid on application, 10s. November 1, 10s. on January 1, and the remaining 10s. on April 1 next. The whole 200,000 are to rank equally for dividends accruing since the payment of the last, as well as future dividends, notwithstanding that a portion thereof may be only partly paid up. This company has met with exceptional success in its short career, its first business being to promote the Waitekauri Gold Mines (Limited), in which it holds a large number of shares. It has likewise become interested in a large number of promising undertakings in New Zealand, Western Australia, British Columbia, and elsewhere.

THE FORTUNA COMPANY (LIMITED).

The report of the directors to the shareholders states that the accounts which accompany this report show a profit on the six months' operations to June 30 last of £2019 15s. 9d. This compares with £1972 1s. 3d. for the preceding half-year, and is so far favourable, but as it was accompanied with some further decrease in the reserves of ore, the directors have felt it right, whilst increasing the dividend, to recommend the writing off of a liberal sum as depreciation from the "mines, buildings, and machinery account," so as to place the company

in a strong financial position. The price of lead has lately taken an upward turn; this will be of great help to the company at this juncture, as parts of the mines which were too poor to be worked when prices were very low may now be worked to advantage.

THE ALAMILLOS COMPANY (LIMITED).

The half-yearly report of the directors to the shareholders states, among other things, that the profit of £3731 14s. 4d. shown in the accounts is decidedly good, and is larger by £251 0s. 4d. than the profit for the preceding six months, and along with the increased profit there has been an increase of 550 tons in the reserves of discovered ore. These reserves are now reported at 3750 tons. The better price of lead now ruling encourages the superintendent to carry on the exploratory operations with increased vigour, and at the same time the mining expenditure is kept within moderate limits. The rate of exchange now current between this country and Spain is fortunately in the direction of economy. The smelting results have only varied slightly from those of the previous six months, and the work has proceeded with great regularity.

THE LINARES LEAD MINING COMPANY (LIMITED).

The half-yearly report of the directors to the shareholders states that the audited accounts for the half-year to June 30 last show a profit of £1833 18s. 9d.; this has enabled the directors to pay a dividend of 10s. per share, to write off the sum of £1000 as depreciation from the mines, buildings, and machinery account, and to carry forward to the next account an undivided profit of £1037 7s. 2d. This excellent result has been obtained without in any way trenching on the reserves of ore which have been maintained at 7000 tons. The financial arrangements of the company now work with smoothness and regularity; as will be seen by the balance-sheet, the company's liabilities only amounted, on June 30 last, to £274 17s. 9d., whereas the floating assets at the same date were £22,415 10s. 1d. The latter have naturally been since lessened by the payment, on the 19th ult., of the half-yearly dividend.

RIO TINTO COMPANY (LIMITED).

The following circular has been issued to the proprietors:—Your directors beg to submit to you a brief interim report upon the company's operations during the current year. The deliveries of pyrites under existing contracts have continued to be satisfactory, and indicate an amount of consumption in excess of last year. The production of copper in precipitate and regulus at the mines, and of refined copper at Cwmavon, continues without interruption, besides which the cost has been further diminished. Your directors have now to declare an interim dividend, out of the estimated year's profits, of 18s. per share, free of income tax, payable on November 2.

ANACONDA COPPER MINING COMPANY.

The Exploration Company (Limited) is informed by the Anaconda Copper Mining Company that the New York board has declared a dividend of \$1·25 per share, payable November 2. This requires formal ratification by the board of Montana, which will shortly meet for the purpose. The above dividend is at the rate of 10 per cent. per annum, and on this side will be paid by the Exploration Company (Limited), 30, St. Swithin's-lane, London, E.C.

The JOHANNESBURG CONSOLIDATED INVESTMENT COMPANY (LIMITED) notify that dividend warrants for dividend No. 5 of 2s. per share (less tax) were posted on the 3rd inst.

The secretary of the ISLE OF MAN MINING COMPANY (LIMITED) informs us that he has sold 100 tons of this company's ore at £0 0s. 6d. per ton.

The MYSORE GOLD MINING COMPANY (LIMITED) has sold the gold obtained during the month of August last, which realised £35,700 13s. 3d.

The NUNDYDROOG COMPANY (LIMITED) has sold the gold obtained during the month of August last, which realised £14,655 1s. 1d.

The BALAGHAT-MYSORE MINES (LIMITED) has sold the gold obtained during the month of August last, which realised £841 16s. 10d.

The directors of the LONDON AND NEW ZEALAND EXPLORATION COMPANY (LIMITED) have declared an interim dividend of 1 per cent., payable to shareholders registered on the 15th inst. Transfer books will be closed from 14th to 21st inst. inclusive, and dividend warrants will be posted on the evening of the 21st inst.

The COROMANDEL GOLD MINING COMPANY OF INDIA (LIMITED) have sold the gold produced in August for £2731 16s. 7d.

GOLD MINING IN ONTARIO.

(FROM OUR OWN CORRESPONDENT.)

ONTARIO, as a gold-mining country, must sooner or later attract the attention of practical mining men and capitalists throughout the world. Sufficient development has been made to demonstrate the fact that the province contains gold veins of permanency, depth, and richness, and it is claimed that the territory between Port Arthur and the western boundary of Ontario is as rich a gold-producing country as the Rossland district of British Columbia, and the reason that so much is heard of respecting the latter place is because the mines in that district are owned by American, who, with their customary energy and push, are straining every nerve to "boom" the district, so that they may be the better able to dispose of their properties, at handsomely prices, to British and other capitalists.

Canadians take little or no interest in the development of the mineral resources of the country, and are loth to invest money in mines, and one cannot understand their apathy towards such a rich field for enterprise; they do not seem to have awakened to the fact that they possess probably the greatest mining region ever discovered. It cannot be for lack of capital, for according to the official statement for the month ending December 31 last shows that there was deposited by the public in the chartered banks of Canada the large sum of \$187,119,573, whereof \$119,667,176 is presumably drawing a very low rate of interest, possibly 3 or 3½ per cent., while \$67,452,397 is at call drawing none, yet the fact remains that nearly the whole of the gold mining properties in Canada are owned or controlled by either American or British capitalists. However, if Canadians think it good policy to possess the land and let others win its wealth, is a matter for their own consideration.

The most promising districts in Ontario, with regard to gold mining, are Sudbury, the valley of the Thessalon River, the north shore of Lake Superior, and in many places in that part of the province which lies in the basin of Nelson River. This latter district embraces Lake of the Woods and Rainy Lake, and it is here that most development work has been done. There are six stamp mills erected for the treatment of gold ore, and the number will be added to as soon as the necessary capital is forthcoming.

The most promising mine at the present time is the Sultans, situated 8 miles from Rat Portage. There are 70 men working on this mine with a 10 stamp mill. The mine has been in operation for about three years. About a year ago the run was from \$1000 to \$1200 per week. This year, however, it has averaged over \$3000 per week, and within the past month \$4600 was secured from one week's run. The ore is claimed to be free milling throughout the entire extent of the workings. A chlorination plant for treating concentrates has just been added. A very rich body of ore has been struck at a depth of 178 feet.

only redeeming feature has been displayed by New Zealand, which, amidst the general flatness, have been the least affected. The prospects of the colony are exceedingly bright. It possesses not only an abundance of the precious metal, but it is greatly favoured by Nature with the conditions for the successful working of it. In this respect it advantageously compares with other rich gold fields, and is one of the secrets of its great popularity. It has no labour difficulty; it does not suffer from an insufficiency of water; political troubles are unknown; and thus it enjoys an immunity from the evils which retard the progress of the Rand and Western Australia. As a result of the knowledge acquired of its unique conditions, very powerful firms have turned their attentions from elsewhere to this promising colony, and their faith in its possibilities and potentialities is not likely to be disappointed. The richness of the colony, as our correspondent shows in his letters, is not confined to any one district, but extends over a large area. Considerable activity is everywhere displayed, with the result that we hear almost daily of new and wonderful discoveries. During the last week or two we have been publishing the annual statement of the Minister of Mines for the colony, an early copy of which we were successful in obtaining. That statement in itself is sufficient to prove how extensive the gold area is, and no intelligence is needed to forecast from its past history and present achievements what its future destiny is likely to be. Its features have little in common with those of the Rand or Western Australia. The reefs are not distinguished for that uniform distribution of the precious metal which is the characteristic of the Main Reef series, nor are they so shallow and pockets as in the sister colony. In places, the reefs have been extremely rich, and thus there is always the prospect of picking up a valuable prize. But a greater inducement is the evidence of permanence, and of payable richness in depth. Like the Rand, New Zealand has its deep levels, abundant testimony of which has already been furnished. There is the meeting of payable gold in the Kapanga Company's property at a depth of considerably over 900 feet, a discovery which must rank as one of the most important and encouraging features of the past year. It will impart confidence in the permanency of the reefs, and their valuable contents in the deeper levels, and promises a fresh lease of life to those gold fields where much of the shallower ground has become exhausted. It is also anticipated that during the coming year the testing of the deeper levels at Reefton will be undertaken, the prospects of which are most encouraging. What has worked wonders for New Zealand has been the cyanide process. The colony's remarkable progress has been due in a chief measure to the introduction of this, and its future also will be greatly dependent upon it. As evidence of what it has accomplished we have only to refer to a paragraph in the statement of the Minister of Mines wherein he says:—

"In the Hauraki gold fields the cyanide process is now very extensively used, and it is of great interest to state that no less than 71 per cent. of the total production of the gold and bullion of those fields was extracted through the agency of that process. The extraction of bullion by the cyanide process last year was 52 per cent. of the total value of the bullion obtained in this district. Judging from these figures, the time is not far distant when the process will be more generally adopted at the mine in the North Island. During the past few years the cyanide process, in the hands of different metallurgists and engineers, has made rapid strides, chiefly in the designing of plants and appliances to facilitate the handling of the ore and reducing the cost of treatment. The ordinary cyanide process is not suitable for the treatment of all classes of ore, more especially that containing base metallic substances, including copper compounds; but no doubt modifications and improvements will be found to overcome the difficulty, as a result of the researches now being conducted by different metallurgists and chemists." What the process has done for South Africa it is destined to do for New Zealand. And that is a statement full of the greatest significance.

It is impossible to conclude an article upon the gold mining industry of this colony without making some reference, however brief, to the more prominent of New Zealand companies. The Hauraki, perhaps, will be the first to occur to the minds of most. Its brilliant achievements have been the cause of general admiration. We have been dazzled by them, and Hauraki is now associated in the mind with ideas of all that is wonderful. The mine is situated in the Coromandel district, and is the chief gold producer there; in fact, during the past year it produced more than half the yield of gold from the field. As a consequence of its success a large number of mining properties have been acquired in the immediate neighbourhood, as has been apparent from the numerous prospectuses with which investors have been inundated during the past six months. Then there is the Kapanga, another company with brilliant prospects, and respecting the future of which Captain ARGALL has expressed himself in very hopeful terms. There is the Waihi, a concern which is always beating records in its monthly outputs, whilst the Waihakuri is also doing exceedingly well, and has a most hopeful future. In no wit behind these follow Tararu, Copek and Preece's Point Proprietor, Kathleen Crown, Tokaia of Hauraki, the Komata Reefs, and Komata Queen, all of which are opening up in a most encouraging manner. Neither must we omit to mention the Consolidated Gold Fields, the shares of which are always a special attraction to New Zealand investors, and are looked upon as a leading feature of this section of the market. Being a parent company, and possessing a very extensive area in some of the richest portions of the colony, this company has a magnificent future. During the past week the New Zealand market has suffered more or less from the prevailing dullness, but this, of course, should occasion no surprise. There is an air of depression overhanging the entire market, and each section of it naturally suffers. But it cannot be expected that this will last much longer, and when better times do come, New Zealanders will be amongst the first to benefit.

MINING EDUCATION IN ENGLAND.

THE past week has been a memorable one in the annals of scientific and industrial education. At two of the chief mining schools of the country the sessional programme has been inaugurated with a peculiarly pleasing and graceful function. In London the venerable Dean of the Royal College of Science, whose rich and somewhat Johnsonian style of humour is so cordially welcomed by the old students at the annual dinner, gave a singularly appropriate address upon the occasion of the distribution of prizes and medals to successful students. To adapt the matter and tone of a speech to the sympathies of his audience is not always an easy task for a speaker, but Professor JUDD appears to have hit a becoming point of compromise between the professorial and didactic style suited to the lecturer's rostrum, and the freer rhetoric of personal intimacy. At the Durham College of Science the Home Secretary prefaced the work of the coming session with a forcible statement of the purpose and object which the founders of the institution had before them, and a stirring appeal to the students to profit in the largest possible way by the educational facilities open to them. Himself a man of the world, Sir MATTHEW WHITE RIDLEY was careful to give a practical stamp to his remarks that should not be void of result with the youthful audience who waited upon his words, and his speech will rank high among the advisory exhortations which come "thick as tiles" with this season of the year. It is at once interesting and profitable to compare the two institutions thus re-entering together upon the winter term. Each is admirable in its way, but each is distinguished by a peculiar character of curriculum. Carried on latterly in close association with the Royal College of Science, it is natural that the School of Mines at South Kensington should place rather more store upon the abstract than the practical side of its work, and, consequently, it is credited with rather more affection for the pure sciences, in which certainly in the most complete manner the correct industrial methods have their grounding, than for those work-a-day branches of practical knowledge by which gold and coal are actually won out of the earth. Durham, on the other hand, itself the centre of a coal mining industry that makes itself felt to the confines of the globe, is naturally the focus ground of many influences that make for an actual practical knowledge of mining perhaps more immediately useful so far as actual mining operations are concerned. Each of these special types of teaching has its advantages, and in a sense it may be said that they hardly come into competition with each other. Perfection in theory, and perfection in practice, have each its recommendations, and the harmonious blending of both should be the highest aim of the mining student.

Professor JUDD, in the course of his address to the students of the Royal College of Science, dwelt at considerable length upon the circumstances connected with the foundation of the College, and the incorporation therewith of the Royal School of Mines. The institution, from the scientific point of view, is not the least among the many enduring monuments which will preserve the fame and attest the usefulness of the late Professor HUXLEY. There is, of course, the vexed question as to whether the School of Mines or the Royal College of Science gained the more by association together, but there can be no doubt—the question of endowments and grants apart—that mining practice in this country has gained a good deal by the attainment of a more scientific method. There is, undoubtedly, some ground for complaint as to the stiff and inelastic character of the education with which the mining students of this country are equipped for the after work of their lives; but the complaint lies rather with the obligatory inclusion of many foreign and superfluous subjects in the mining curriculum. It is, moreover, now widely customary for the South Kensington students to spend a brief, but still useful, period underground in the home mining district, and provided they make the best use of their time, there should not be much ground left for subsequent fault-finding. To suppose that a student fresh from the laboratory should be fitted to take the sole control of a large mine would be unreasonable. No amount of class room teaching, or even practical work, can properly supply the place of that large and practical acquaintance with life and affairs which, as in most other walks of life, is an indispensable requisite for a successful career. The most carefully elaborated scheme of education yet devised is but a preliminary to the sterner teaching of actual experience. The common error that the education of a student ceases as soon as he has passed from the lecture room into the world could only gain currency because people are too much in a hurry to examine it. A subject which, like mining, develops special types in different countries, can only be lucidly grasped after years of experience; but much of the value of that experience is lost, unless the mind be prepared by earlier training to appreciate it.

This autumn the Durham College of Science enters upon its 26th session with a record of solid successes in the past, and a crowd of most encouraging anticipations for the future. Like every other institution of its kind, the college is an evolution from useful and unpretentious beginnings—a growth which culminated comparatively a short while ago in the present magnificent building, eminent teaching staff, and vast sphere of work. Were there no other evidence in its favour, the almost unexampled rapidity with which it has developed would alone bespeak the character of its work. Situated in the very heart of a mining district, the institution met a want keenly enough felt in the neighbourhood, and the originators were not slow to see that only by the aid of the best professorial staff to be had, and with the accommodation of a capacious building, could the needs of northern England be adequately met. There is no subject in the lately enlarged curriculum which is in better hands or more adequately treated than mining. Only those who have read the frequent and able contributions from Professor LOUIS' pen on

mining subjects, and are acquainted with the leading facts of an experience that is as varied as it is cosmopolitan, can form a reliable judgment of his fitness to take in hand the education of the young miner. The efficiency and usefulness of the classes under his control are universally acknowledged. It must, moreover, be remembered that his work is carried on with all the advantages of contiguity to a busy coal field. There is, in fact, an almost humorous proximity between class room and mine, and were not the architectural stability of the building so altogether beyond any sort of question, a fanciful imagination might be tempted to suggest the possibility of a sudden disappearance of the grave and learned assembly into the recesses of the earth. The college is literally undermined, a circumstance which renders possible an instant adjournment down a shaft to apply the principles of mining practice so learnedly expounded above. Under such circumstances as this, mining could hardly be other than practically taught, a quality which will certainly make itself felt in the fitness of the students to take personal charge of mining operations when they are out of their novitiate. Encouraged by the past history of the institution, the authorities of the college may confidently anticipate an even larger measure of success in the future.

LAKE VIEW EAST.

THE statement made by the Chairman at the statutory meeting of the Lake View East Gold Mine was of a very gratifying nature, and the proprietors may fairly safely assume that their money is invested in a mine which, with judicious management, should substantially reward them for their outlay. The property is situated in a district where there are already established several valuable mines, while in regard to the successful working of the lodes, Colonel PARRY NISBET assured the shareholders that a sufficient supply of water would be secured from the Hannan's Water and Ore Reduction Company, and that of timber there was an abundance. Writing in August, Mr. GEORGE GRAY informed the directors that the lode in the crosscut from the No. 2 shaft was found, by fire assay, to be worth 8 ounces. In addition, samples taken from the 18 inches then opened on the hanging wall gave 5 ounce prospects. Mr. GRAY continues—"This is very gratifying, of course, but I do not expect that the lode, when opened, will average anything like this. I shall be perfectly content if it opens and goes as well as the Lake View South. This particular part of the belt is fraught with great possibilities. There are two distinct lode formations in this ground which have proven a little to the north and east to be exceedingly rich and continuous." In a cable dated September 26 Mr. GRAY confirms this opinion, and adds: "The value of the Lake View East has been enhanced by the recent discovery of a fine lode carrying gold milling ore on the Lake View Extended, striking through the heart of Lake View East. We are now sinking on the course of this lode." It is evident from the news received that the mine is being developed in a very thorough and systematic way, and shareholders apparently have no cause for anxiety as to the future of the company.

GOLDEN LINK AMALGAMATION.

THE fashion of consolidation which has been so much in vogue among the South African companies has penetrated to the West Australian market. The Golden Link consolidation, which is the case in point, gives every promise of being a large and important concern. Up to the present four companies have signified their intention of participating in the scheme, but another company is mentioned as a possible fifth party. The capital of the Golden Link Consolidated is fixed at £550,000, which leaves a margin of £280,000 over what is required to meet the interests already held in the four companies. One advantage of the amalgamation will be a considerable reduction in the capitalisation upon which dividends will have to be earned. The amalgamation will, moreover, start upon its career with cash to the amount of £50,000 in hand, and a complement of machinery valued at £8000. Beyond this there will be the economies, which must be effected by the use of the same office accommodation and the curtailment of other expenses common to all the individual companies. There can be no doubt that in certain cases amalgamation is productive of great benefits over the separation and individualisation of small companies, and in the present instance the shareholders in the different concerns which are parties to the consolidation will seem to be extremely hopeful of the ultimate results of the step which they have decided to take.

THE REVIVAL IN THE STEEL TRADE.

SOMETHING like a "boom," alike in Bessemer and Siemens or in open-hearth steel manufacture—and, as compared with periods a little anterior, a distinct revival—is demonstrated by the official returns just published of the British Iron and Steel Association of the production of steel in the United Kingdom during the first half of the present year. Though the increase in both these departments in the second half of last year was marked, it is altogether outstripped by the extraordinary development of our steel output as revealed by these latest figures. Broadly speaking, the total of Bessemer and open-hearth combined reaches for the half-year some 2,000,000 tons, or more than 250,000 tons in excess of the total for the corresponding period of last year. This growth of about 12½ per cent. is decidedly gratifying to all who have the welfare of the steel trade at heart, and hardly less to the coal and ironstone mining interests than to producers of the metal in its finished form. In other words, our total steel production is now at the rate of 4,000,000 tons per annum, which is by far the largest production ever made by any European country, though it has been beaten more than once by the United States. For some years metallurgists have watched with interest the race for

supremacy between Bessemer and Siemens steel, and the new returns prove conclusively that the latter is increasing the lead which of late it has attained. The total quantity of Bessemer ingots for the half-year was 995,522 tons as compared with 1,063,798 tons of Siemens ingots. The former production was an increase of as much as 13 per cent. upon the corresponding period of last year; but the improvement of the latter description was even greater, amounting, indeed, to about 20 per cent. It is in the north-east of England that open-hearth steel shows most expansion, the present output there being at the rate of 800,000 tons per annum; and next in order of growth comes Scotland, where the production of this metal is now at the rate of 600,000 tons per annum. The Scotch record for the second half of the year will, probably, be more satisfactory, inasmuch as several new or improved works, such as those of the Glasgow and Calderbank Companies, will have got into fuller swing. The increase in the newer open-hearth steel-making districts, such as Staffordshire, Lincolnshire, &c., is also very noticeable.

BOARD OF TRADE RETURNS.

We have no reason to feel over gratified with the Board of Trade Returns for the past month, yet we may regard them with some feelings of satisfaction. Considering that the month includes one working day more than in the corresponding period of last year, the increase of £335,140 in the exports is but a modest one. Nevertheless, it is evidence that our foreign trade, in spite of some adverse influences, is well maintained, and in that fact there is much cause for congratulation. We must also bear in mind that we are comparing the figures with an exceptional month, when the exports showed a great expansion. The imports, however, are much more favourable, the advance amounting to £2,492,000, or rather more than 8 per cent. We are now able to compare the figures for the three-quarters of the year, and we find that our export trade has expanded by £13,815,716, and the imports by £12,432,000, a sufficient proof that British trade is not declining, and that there is no ground for the lamentations in which many are too inclined to indulge. We again find that metals and articles manufactured therefrom take the lead, the increase amounting to £300,281, or 12 per cent. The total export of iron and steel during the month amounted to 314,736 tons, as compared with 269,316 in September, 1895, the values being respectively £1,978,784 and £1,709,377. During the nine months we have exported 2,825,543 tons, valued at £17,695,913, against 2,036,003, of a value of £14,227,237. On the other hand, tinplates show a shrinkage of 37 per cent. on the month and 26 per cent. on the nine months. Copper also shows a decline, which is very marked, and extends to sheathing and wrought, as well as the unwrought metal. Altogether, therefore, as we have remarked, though we have no occasion to rejoice, yet we must feel satisfied with the returns, for the month has been affected by unfavourable influences and especially by the depression in the United States.

INTERNAL COMMUNICATION IN WESTERN AUSTRALIA.

Our effect of the gold mining revival in Western Australia has been to emphasise the necessity of improving in no inconsiderable degree the harbour accommodation at Fremantle. From all accounts it appears obvious that the unexpected volume of business which owed its origin to the gold industry found the harbour works at the chief port of entry very much lower in point of efficiency and accommodation than might have been wished, and when to this was added a vast congestion of transport traffic on the few lines of railway which the colony already possessed, and the tedious and costly character of the road transport from the railway limit to the far-off gold districts, it will be seen that the mining industry, at the outset of its rejuvenated career, had one or two ugly obstacles to overcome. No blame can justly be accorded to anyone for this, since the sudden and wonderful expansion of the gold mining industry was quite beyond the prophetic range of even the keenest introspective vision. It has, moreover, to be added to the credit of the Government that they have not been at all tardy in their endeavours to cope with and remove the insufficiency of internal communication which has so far seriously hampered gold mining. When the different colonial towns and districts have finished their light-hearted squabbles as to routes and termini there is reason to suppose that Western Australia will be in possession of a railway system almost commensurate with her needs, and which in this world of imperfection will approach the limit of reasonable expectation. In the same way it appears that considerable harbour improvements are now in progress at Fremantle, so that all delays which might follow upon traffic congestion at that port may be removed.

NEW ISSUE.

PEABODY AND BERKSHIRE GOLD MINES (LIMITED).

This company has been formed with a capital of £100,000, of which 40,000 shares are now offered for subscription, for the purpose of acquiring two gold mining properties, the one known as Peabody having an extent of about 50 acres, and the other the northern half of Berkshire, about 15 acres, adjoining, with all rights, claims, mill site, and water rights. The prospectus states that "the properties are advantageously situated, being within about 2½ miles of a railway-station, and 200 miles from Melbourne, and according to the reports there is an ample supply of water and timber for all milling and mining operations. The Peabody Mine has been thoroughly well proved, having been worked on a small scale since 1861. Since 1893 a considerable amount of work has been done, a tunnel having been driven 637 feet, which has cut the reefs worked in the upper levels. In the course of development small quantities of ore have been collected, and nine crushings made, in all about 445 tons, which yielded 726 ounces of gold, and realised over £4 per ounce, the last crushing showing about 2 ounces to the ton. It is believed that the reefs already found on the Peabody will run into the Berkshire."

THE MINING MARKET.

FRIDAY EVENING.

A week of nervous excitement, with wide fluctuations in Kaffirs.—The position uncertain pending the disclosures of the Settlement.

IN writing last week, we stated that it was extremely difficult to forecast the course of prices in the Mining Market, and that until the political uncertainty was relieved it was hopeless to expect any marked improvement. So far as the uncertainty is concerned, it has reappeared on pretty well every day of the intervening period, which has been characterised by much nervous tension and some wide and excited movements. The net differences on balance at the close are not in themselves extensive, but they represent the results of transactions, in many cases fraught with grave importance. At the present time the position is more difficult to gauge than it has been at any previous juncture. There has been an enormous amount of selling, and until the Account is arranged we are left in the dark as to whether the sales have been for delivery of real stock, or are on account of speculators for the fall. Again we have to learn whether the stock has passed into strong hands or the reverse, and whether the heavy differences which will have to be met will bring down operators of any importance. During the week rumour has been busy with the most preposterous suggestions, reflecting upon the credit of all the most unlikely men. There is nothing now in this phase of a bear campaign, and it is only too probable that history will repeat itself by the complete disapproval of nine-tenths of the canards that have been in the air. These points, however, cannot be set at rest until the account day has come and gone, and in the meantime the markets are so sensitive as to move in an exaggerated way at the first appearance of a big dealer.

On Saturday morning the Kaffir Market opened flat on a pressure of sales from France, the stock particularly attack'd being East Randa. There was hardly an exception to the fall which, however, was most marked in those stocks dealt in on the Bourse. West Australians held their own tolerably well, and New Zealanders were well supported. On Monday, Paris sales again depressed the African Market, and the bear brigade on this side joined in with a will, with the result that a general fall was established. West Australians were dull, and there was nothing very cheerful about the Miscellaneous department. Tuesday was a miserably wet day, and everything appeared to work in favour of the bears, who were in control throughout the day in all departments. The Paris Bourse was closed in honour of the Czar's visit, but it was evident that liquidations on an extensive scale were in progress in this market on French account. On Wednesday, amid an incessant downpour of rain, the bear raid made further progress, assisted by some heavy sales of real stock. During the last hour of business a sharp change occurred, stories being circulated to the effect that strong combinations had been formed to check any further fall. This was the signal for a stampede among the bears, and prices of South Africans rose excitedly, the greater part of the previous losses being recovered. On Thursday the advance made further progress during the earlier dealing, but by noon a halt was called, and after an hour or so of hesitancy prices broke away again, reaching their lowest about 3 o'clock. There was a slight reaction before the close, and Kaffirs opened better again to-day. There was a spasm of flatness about midday, but at the close a general recovery is seen. There has also been a fair amount of quiet buying in the West Australian market, on account of investors who are averaging. Copper shares have been good, and altogether the market has a more cheerful appearance. To-morrow will be a *non dies*, and the making up for the mid-October Settlement will commence on Monday.

South Africans.

The pivots upon which the Kaffir Circus have turned this week, have been East Rand and Consolidated Gold Fields. The former have been pressed for sale from France to liquidate the account of a large operator whose difficulties have necessitated the intervention of influential capitalists. Discouragement has also been intensified amongst holders by the discovery that the capital will have to be increased to provide funds for further developments, whilst the proposal to extinguish the vendor's interest has not been favourably received. Goldfields have fluctuated extensively under the influence of unconfirmed rumours to the effect that the next dividend will be passed. At the same time, the heavy fall in Goldfields Deep gave colour to all the old pessimistic utterances to the disparagement of Deep level mining generally, to which the Consolidated Company is so extensively pledged. The rally which was brought about on Wednesday afternoon owed its start to the report that two or three of the big South African houses were laying their heads together to support the market, and although little open buying has as yet taken place, it is understood that several large lines of stock have been taken over privately so as to prevent a further breaking of the market. Chartered have attracted comparatively little attention and close with a net loss of ½ at 2½. Gold Fields, which we left at 12, changed hands at 10½ during the worst of the slump on Wednesday. They close to-night at 11½, with Gold Trusts only ½ down at 7½, after being nearly a point lower. Gold Fields Deep broke from over 10 on Saturday to 7½ on Wednesday closing just midway at 8½. East Rands are finally ½ down at 6½, having touched 5½ at their worst. Anglo-French are sympathetically ½ lower at 4, whilst in the majority of Land and Exploration Companies changes are more or less nominal, actual business having been on a small scale. Rhodesia Exploring has fallen ½ to 5, Mashonaland Agency ½ to 1½, New African ½ to 2½, Zambesi ½ to 2½, Willoughby Consols ½ to 1½, Henderson's ½ to 2½, and others ½ or so. The Barnato Group is generally lower, though closing above the worst. Johnnies Investments leave off ½ down at 3½, after touching 2½. This looks badly for the new issue, which Messrs. Barnato Brothers have guaranteed at 3½. Barnato Banks are ½ down at 1½, as are the Consols at 2½. Buffels have lost ½ at 2½, and declines of ½ are seen in Ginsberg at 2½, Glencairn at 2½, Kimberley Roodeport at 2½, New Primrose at 5, and Spes Bona at 1½. In the Robinson group, the Banks have lost ½ at 5½, Randfontein ½ at 2½, Randfontein North ½ at 1½, Langlaagte ½ at 5, and Block B ½ at 1½. Deep Levels have all been affected by the weakness of Goldfields Deep. Rand Mines were no better than 25½ on Thursday, but they have rallied to-day to 26½, which is 2 points below last week's price. The Goldenbush Deep return published on Thursday although it shows a slight increase in actual yield, was voted unsatisfactory because the profit for the month was only £1250. The share close above the worst, half a point down at 4½. At the same figure Nourse Deep shows a loss of ½, as do Champ c'Or Deep at 1½, Consolidated Deep at 5, Comets at 2½, and Roodeport Deep at 2. The total output from the Rand for September has not yet been announced, but the individual returns from many of the outcrop companies have been regarded as

disappointing, on which account the leading dividend payers of the Eckstein Group have suffered in a rather marked manner. Jumpers have fallen ½ to 5½, Nigel ½ to 2½, Summer and Son 1 to 5½, Jubilee ½ to 8½, Ferreira ½ to 19, Village Main ½ to 5½, City and Suburban ½ to 4½, H. N. Nourse ½ to 6½, Heriot ½ to 8½, and Geldenhuys ½ to 3½. Middelburg sustained a heavy fall in the middle of the week, one or two big lines of shares being put upon the market. From over 6 the shares were depressed to 4½, but they have rallied to-day to 5½. Durban-Roodepoort are actually ½ higher on the week at 6½, but Knight's have been very flat, closing ½ down at 5½. Meyer and Charlton have declined to 5½, Bantje ½ to 2½, Crown Reef ½ to 10½, Robinson ½ to 8½, Transvaal Gold ½ to 6½, Volksstruis ½ to 4, Worcester ½ to 5½, and Worcester ½ to 4½. One of the few stocks that have held its own is Van Ryn ½ higher at 5½. The small Lydenburg shares are generally a few pence easier, but Spitzkoppe have suffered from realisations in Paris, closing well above the worst, but still ½ down at 28½. Jagers have lost ½ at 9.

West Australians.

A good deal of disorganisation has been evident in this department during the week, and all manner of rumours have been rife as to the difficulties of individuals and cliques. Although during the semi-panic it was difficult to get prices made at all, there has since been a fair amount of quiet buying. Mr. Horatio Bottomley and his friends appear to be organising support for the Associated Group, and in one or two other sections of the market there is a reassuring firmness. Prices have now reached a level at which purchases involve comparatively small risk, provided that proper selection be made of the shares laid in. There are any number of bears about, and it is quite on the cards that a smart rally may come off within a very short time. Associated have lost ½ at 2½, Associated Southern ½ at 1½, Lake View South ½ at 2, and W.A. Joint Stock Trust ½ at 3½ premium. Great Boulders dropped to 6½, closing ½ down at 6½, and Hannan's Brownhill are above the worst at 4½. North Boulders have been further depressed on unfavourable estimates of the trading, but they close only slightly worse at 4½. Iron Kings have lost ½ at 1½, Golden Horseshoe ½ at 1½, Oroya ½ at 1½, Hannan's Star ½ at 1½, Lady Loch ½ at 1½, and Lake View ½ at 1½. The most sensational fall is in Hannan's Reward which at 1½ show a loss of 40 per cent. upon last week's quotation. The amalgamation scheme has depreciated Golden Links ½ to 1½. In the Menzies Group, Mining is ½ better at ½, whilst Consols ½ are seen Gold Estates at ½, O'Driscoll at ½, Menzies Reef at ½, and Florence at ½. Lady Shenton ½ down at 2. The White Feather Group is distinctly harder—White Feathers at 2, Wealth of Nations at 1½, and Hit or Miss at 1½. Rimage Syndicates have lost ½ at 2½, and Black Flags are ½ down at 1½, Share Corporation are ½ down at ½ premium. Gold Fields have lost ½ at 6½, Hampton Plains ½ at 3½, and Mainland Consols ½ at 2½. A special feature to-day is a fall in Colonial Finance which are down ½ at 2½. London and Globe Finance, on the other hand, has been conspicuously strong, closing ½ up at 4½, whilst the D-ferred shares are up to 6½. The special settlement in West Australian (Gold District) Trading Corporation took place on Thursday, and some strange stories are afloat as to the vagaries of one of the chief operators. The ordinary shares, which were over 22 last month, fell to 12s. 6d. on Wednesday, but have since rallied to 1½, whilst the founders' shares, after falling from 90 to 10, leave off about 70.

Miscellaneous.

The declaration of an 18s. dividend on Rio Tinto came out at the wrong time to have its full effect. Under more favourable conditions Copper Shares would doubtless have gone ahead. As it is, Tintos are ½ lower on balance at 24½, with Ansonia ½ down at 6½. Capes at 2½, Libbion at 2½, Mason and Bell at 3, and Tharsis at 5½ are all well maintained. Broken Hill Props have lost ½ at 2½, as have British at ½. Mount Lyell are ½ better at 8½. Wentworths have declined ½ to ½, and Aladdins are a like fraction lower at 2½. Indians are generally having attracted less attention than usual. Losses not exceeding ½ are shown in Champion Reef at 7½, Mysore at 8½, Nundydroog at 3½, Oregum at 2½, Coromandel at 2½, and Oregum Pref. at 3½. New Zealanders have been fairly steady, Taipu at 3, and Silverton at 2½, being actually higher, whilst Waihi at 6½, and Waitemata at 4½ are only ½ down. Charters Towers Varieties are dull, Day Dawn Blocks being back to 11s. 6d., and Bonnie Dundee to 7. Golden Feathers have receded to ½. The British Columbian boom is in complete abeyance, and it is tolerably certain that with a clearance of the financial atmosphere we shall hear a good deal more of this coming centre.

STOCK EXCHANGE SETTLING DAYS.

CONSOLS.

Thursday, November 5.

MINING MAKING-UP DAYS:

Monday, October 12. | Monday, October 25.

MINING NAME DAYS:

Tuesday October 13. | Tuesday, October 27.

ACCOUNT DAYS:

Thursday October 15. | Thursday, October 29.

ELECTRIC PUMPING PLANT FOR COLLIERIES.—The Aristo Coal Company have contracted with Messrs. Ernest Scott and Mountain (Limited) for the supply of an electric pumping plant for their colliery of considerable size. The generating machinery consists of two horizontal engines, with Corliss triple expansion gear, each capable of 300 brake horse-power. Two continuous current dynamos are driven by them, each machine giving an output of 200,000 watts, at an E.M.F. of 525 volts. The current from the dynamo is taken to a distributing switchboard in the engine room, the switchboard connecting with two pairs of main cables, which run down the shaft to the terminal box at the pit bottom. The object of placing four cables in the shaft is to prevent any possibility of breakdown through the cables being accidentally damaged, as any pair of cables can, in case of emergency, carry sufficient current to enable the plant to run without stoppage. Underground there are four sets of three-shaft pumps of this firm's improved type, one pump delivering 500 gallons per minute against a head of 270 feet, along a road to a sump at the bottom of the shaft, about 1200 yards away. At this point a second pump of the same size—viz., to deliver 500 gallons per minute against a head of 690 feet. Two dip pumps are being provided at present, each delivering 100 gallons per minute against a head of 450 feet; but at a future date two additional sets of pumps will be provided.

ARE CORNISH EXPERTS WANTED ABROAD?—The interview which we published last week, under this heading, with Mr. W. Thomas, C. E., was erroneously attributed to the *Cornishman*, it should have been the *Cornish Post*.

THE BOOKS OF WESTERN AUSTRALIA (LIMITED).—The books of Western Australia (Limited), 5½, Broadhurst St., will be closed on Wednesday, October 16.

ROYAL COLLEGE OF SCIENCE, LONDON,
WITH WHICH IS INCORPORATED
THE ROYAL SCHOOL OF MINES,
PRIZE DISTRIBUTION.

Address by the Dean.

THE opening of the 1896-97 Session of the Royal College of Science, London, with which is incorporated the Royal School of Mines, was on Wednesday made the occasion of the distribution of the prizes, &c., awarded to students as the result of their labours during the preceding term, together with an address by the Dean, Professor J. W. Judd, C.B., LL.D., F.R.S. The interesting event took place in the Lecture Theatre of the Museum of Science and Art, South Kensington, and attracted a very large gathering of the pupils and their friends.

The Dean, in the course of his address, referred at some length to the foundation of the college, quoting from the speeches of Sir Henry De la Beche, Dr. Lyon Playfair, and Edward Forbes, to show the objects for which the institution was established. Sir Henry had explained in an inaugural address that it was proposed to "unite in a manner not hitherto attempted a sound combination of science and practice." Within four years of its first establishment the school had the misfortune to lose all three of the distinguished men to whom he had referred. The technical division of the college was more fortunate, and teachers like Smyth, Ramsay, and Percy could not fail to make the instruction given in the School of Mines a great success. So little, however, was the value of this instruction appreciated by the representatives of the mining and metallurgical industries, that during the first 20 years of its existence the average number of associates was only three per annum, while in some years the scholarships, prizes, and medals could not be awarded for lack of candidates. That the college did not perish from atrophy during the early period of its existence was probably due to the labours of men who cherished the same ideals, and were animated by the same broad sympathies as the founders. He took it to have been the most fortunate circumstance that want of accommodation at Jermyn-street compelled the Government in 1853 to unite the School of Mines with the Royal College of Chemistry, and in so doing to secure for the joint institution the inestimable services of Dr. Hofmann. The college had, moreover, shortly afterwards the great good fortune to secure another distinguished teacher and thinker, Professor Huxley, whose influence on the development of the school was even greater than that of Hofmann himself. His loss, somewhat more than a year ago, constituted the severest blow the school had ever sustained. Wide as was the sphere of Huxley's work and influence, it was to the school and its development that his energies were mainly devoted. For 30 years he laboured there day by day, and during the last 10 years of his life, his sympathies, and interest, and concern were always employed in its service. Probably his class instruction was as perfect as anything of the kind which it had ever fallen to the lot of a student to enjoy. Everything which savoured of rhetorical display was at all times eschewed by him. Absolute clearness of exposition was the one object at which he aimed, and no amount of pains taken to secure that end seemed too much for him. In the hands of not a few of his brilliant pupils, Huxley's system of teaching had been introduced into many schools on the Continent and in the United States. Passing on to refer to the present time, the Dean said he hoped that those who had that day been enrolled as members of the college would feel that they were identified with an institution of which they had every reason to be proud, whose best traditions they were concerned to preserve, whose future development they were determined to justify and promote, and whose interests they would all jealousy watch over. It was true that, as compared with the great universities of Italy—or even with those of their own country—they could not boast of a great antiquity. Five years had yet to elapse before they could celebrate their first jubilee. Nevertheless, if they remembered how recent had been the recognition of the value of that culture in which scientific training took a leading part, as distinguished from what was derived from purely literary pursuits, they might, indeed, be proud of the position which they occupied. They might, in fact, claim to be pioneers in the work of science teaching. All acquainted with the history of the school knew that it had developed from very small beginnings, and its council were fully aware of the importance, not only of maintaining the great fundamental principles that animated the founders, but of introducing such modifications and additions into the curriculum as time and experience might show to be desirable. Nor did they fail to profit by the candid criticism which was from time to time passed upon them. They might fairly maintain that in the work carried on by them in the laboratories and out of doors, practical instruction, the value of which was so strongly insisted upon both by De la Beche and Huxley, had been developed in all directions. In the special instruction given to those who would so largely influence the progress of science in the country by teaching it to the young, they were carrying out the projects of Playfair and Forbes. By their connection with the splendid Science Museum, and their proximity to the grand Museum of Natural History, they enjoyed advantages of which their predecessors would never have dreamt. They had not neglected scientific research as a means of training, but had striven to employ and develop the methods so successfully introduced by Hofmann. As in the past, they looked to development with adaptation to the wants of the time as the best security for the safety and welfare of the institution. Cessation of developmental growth meant death, and that college was not going to die. Along what particular lines the future development would take place it was impossible to say. It might be that the technical division of the school would be expanded, and subjects other than those of mining and metallurgy brought into the curriculum. Or it might be that they would be enabled to carry on more perfectly the work of supplying the country with highly-trained teachers of science. Possibly both these ends might be attained by the establishment in the greatest city of the world of a teaching university, and then, perhaps, their college would find no mean or unhonoured place in the great design. But whatever the coming years might bring, he could not doubt that the same high purposes which had always animated the teachers and students of the college would dominate them still, and that the future of the college would not be unworthy of its past. (Applause.)

The DEAN then proceeded to distribute the prizes as follows:—
Associateships.—Royal College of Science.—Mechanics.—First class: Davidge, Henry Thomas; Eagle, James; Lea, Frederick Charles; Schofield, John; Sower, Robert. Second class: Clements, Henry Hamilton; Law, Bernard Courtney; Martyn, Herbert George; Sansom, Charles Isaac; Whaley, Willie.

Physics.—First class: Allen, Arthur Ormiston; Davidge, Henry Thomas; Lea, Frederick Charles; Schofield, John; Sower, Robert. Second class: Clements, Henry Hamilton; Law, Bernard Courtney; Martyn, Herbert George; Sansom, Charles Isaac; Whaley, Willie.

Chemistry.—First class: Butters, Joseph Bendall; Howard, Albert; Meldrum, Andrew Norman; Morgan, Gilbert Thomas; Penn, Francis Richard. Second class: Bradley, William Aloysius; Hickinbotham, Henry Charles; Masters, Edward; Newman, Frank Herbert; Platt, William Newall; Powell, Albert; Sharrott, Thomas Chisholm.

Geology.—First class: Hinton, Henry Arthur. Second class: Fonda, James.

Biology—Botany.—First class: Calvert, Sara Agnes. Second class: Knowlton, Annie Rose.

Agriculture.—First class: Baker, Frederick James. Second class: Gask, J. Platt; William Newall; Rye, George.

Royal School of Mines.—Metallurgy.—First class: Crowther, Joe; Hinton, John William; Avery, Joseph Henry; McMillan, Samuel.

Second class: Blake, George Stanfield; Dodd, Harvey; Hughes, Arthur James; Macdonald, William; Morrison, Christian.

Mining.—First class: Turner, Basil William. Second class: Biggs, George Herbert; Clifford, Edward Herbert; Dodd, Harvey; Douglas, Edward Alison; Franco, Santiago Felipe; Martineau, Caryl Edward; Morrison, Christian Robertson; Moir, William; Poore, Philip; Scott, Henry George; Watermeyer, Gottfried Andreas.

Royal Scholarships.—First year's royal scholarships. Barker, John William; Goodyear, Charles Ernest; Verity, Edmund Rycroft; Harrison, Ernest Thomas. Second year's royal scholarships. White, William Herbert; Smith, Ernest.

Medals and Prizes.—Edward Forbes medal and prize of books for biology, Horrel, Ernest Charles; Murchison medal and prize of books for geology, Dixon, Ernest Edward Leslie; Tyndall prize of books for physics, part 1, Harrison, Ernest Thomas; De la Beche medal for mining, not awarded; Bessemer medal and prize of books for metallurgy, Crowther, Joe; Frank Hatton prize of books for chemistry, Morgan, Gilbert Thomas.

Prizes of books given by the Department of Science and Art.—Mechanics, Fisher, Frank; Astronomical physics, Picknett, William Allan; Practical Chemistry, Morgan, Gilbert Thomas; Mining, Ward, Osmer Bernard; Principles of Agriculture not awarded.

Shortly afterwards the proceedings terminated.

DURHAM COLLEGE OF SCIENCE.

OPENING OF THE SESSION.

THE 28th session of the Durham College of Science was inaugurated on Monday afternoon in the Engineering Drawing Room of the College, Barns Bridge, Newcastle. The Warden of the University (Dean Kitchin) presided, and amongst those on the platform were Sir Matthew White Ridley, Bart., M.P., Home Secretary, the Earl of Ravensworth, Sir Lowthian Bell, Sir David Dale, Sir Andrew Nobel, the Mayor of Newcastle (Mr. Lord), the Sheriff of Newcastle (Mr. Harkins), Dr. Spence Watson, Professor Philipson, Professor Oliver, Professor Arnison, Dr. Plummer, Dr. Hodgkin, Mr. and Mrs. A. Palmer, Alderman Gibson, Principal Gurney, Canon Pennefather, Canon Tristram, Colonel Cookson, Mr. Geo. Reid, Mr. Wigham Richardson, Dr. Embleton, Mr. Page, and Mr. R. Thompson (Sunderland). There was a very large attendance.

The DEAN of DURHAM, in opening the proceedings, said he would be betraying no secrets if he told them that they had just had a meeting of the council of the college—and a longish meeting it was—to discuss all the affairs of last year, and the result of their meeting had been that the college in every respect was found to have grown with singular success during the year, and that it had brought itself into a condition in which it had not been for some considerable time past. That, so far, was a matter for congratulation. A great part of the prosperity of the North of England was centred in that college, and the more it was strengthened and fitted for its work the more thoroughly the country would respond to its needs for help.

Principal GURNEY read his annual report, from which the following extracts are made:—

"It should be especially gratifying to all who are interested in our college that its sphere of usefulness in the district has been considerably enlarged during the last year. In 1891-5 the number of students attending lectures in the college was 1370. Last session we registered 1591 students, in addition to audiences numbering in the aggregate upwards of 3000 people, who attended courses of popular lectures given by the college staff in Newcastle, Jesmond, Gateshead, Gosforth, South Shields, Jarrow, Durham, Spennymoor, Hartlepool, and other places. Besides, the above mentioned, 38 courses of County Lectures, chiefly on agricultural subjects, were delivered in Northumberland and Durham. . . . Since my last report, owing to the generous co-operation of the Durham and Northumberland Coal Owners' Associations, the chair of mining has been filled by the election of Mr. Henry Louis, M.A., A.R.S.M., F.G.S., F.I.C. Professor Louis has more than fulfilled the high promise given by the very satisfactory testimonials which were the ground of his election to the professorship. He has given us entire satisfaction by the manner in which he applied himself to make our mining classes as efficient and as useful as possible. . . . The Professor of Mining reports that in all respects the mining classes are below what they should be in such a centre of mining activity as Newcastle-upon-Tyne. Three courses of lectures were given during the past year:—1. Mining Course—Attended by seven students, two of whom came up with Northumberland County Council Scholarships. He hoped that the County Councils of Durham and Northumberland would send a few more such students annually, as he ventured to think that these men not only benefitted directly by this course of study, but had also been induced to take wider views of their occupation generally, in a manner which, if extended, ought gradually to react beneficially upon the mining community."

Sir MATTHEW WHITE RIDLEY, in the course of an address, said that it was 25 years since the Durham College of Science was established. During those 25 years, he thought, the necessity for and the utility of the college had been demonstrated. (Applause.) He supposed that 25 years ago the industrial supremacy of this portion of the North of England was probably as firmly established as now. In railways, in general engineering, in the building of ships, and in the coal trade, and, let him add, in agriculture, he thought that the North of England held its own, and more than held its own, among the great commercial centres of this country. But assuredly during the last 25 years Tyneside had witnessed an enormous increase in these industries. With that enormous increase, and with the keenness of competition, and with the increasing development of science and the application of science to industries had come the still greater necessity for institutions like that, which dealt not only with the general subjects of education, but also with the practical application of arts and sciences to our industries. (Applause.) He took it that one simple and good definition of technical instruction, of which we heard so much, was that it was instruction in the principles of art and science as applicable to our industries. The growing complexity of our industries, the growing necessity that every manager of works, not less than every young fellow and every artisan engaged in those works, should have some more accurate knowledge of the science applicable to those industries, surely pointed to the enormous practical utility of such a College of Science as that which they possessed in Newcastle. (Applause.) The right hon. gentleman proceeded to give the students some advice as to their attitude of mind in regard to their studies, and spoke of the excellent work which had in the past been done in connection with the college.

Votes of thanks to the Home Secretary and the Mayor and Corporation of Newcastle terminated the proceedings.

WE have to announce the arrival in town of Mr. A. H. Bromley A.M.I.M.E., who for the last two or three years has been engaged in opening up and equipping the Choukpat Gold Mine, the first to be operated by Europeans in Upper Burma. This pioneer enterprise has been in full working order since the beginning of this year, with results satisfactory to the owners. The lode is a bedded lenticular body in clay slate much metamorphosed, and has been developed by adit 400 feet in length and to 150 feet in depth, showing three years' supply of stone so far opened out. The 10 stamp mill, supplied by Messrs. Bowes Scott and Western, has treated to date about 3000 tons of quartz. From the plates the pulp passes over corrugated belt Frie vanner, the concentrates from which are at present stored with a view to future treatment. The tailings assay about 2 to 3 dwt. in gold, and the method of treatment to be adopted, as also that of dealing with the concentrates, is as yet undecided. In fact, the whole method of milling may be altered in the near future owing to the distinctly refractory nature of the ore.

THE METAL MARKETS.

THE METAL MARKET, LONDON, OCTOBER 9.

Copper.

THE G.M.B. market opened on Monday unchanged at £47 16s. d. s.c. and £48 1s. 3d. three months, but in the afternoon the tendency was weakened by some increased speculative sales, £47 15s. and £47 18s. 9d. respectively being accepted. The depression which has prevailed on the Stock Exchange reacted sensibly on copper during the remainder of the week, the value of G.M.B.'s gradually giving way, £47 8s. 9d. s.c. being done on Tuesday, and £47 6s. 3d. on Wednesday, and £47 3s. 9d. on Thursday. To-day's market brought a slight recovery, the close being steady at £47 6s. 3d. to £47 7s. 6d., and £47 11s. 3d. to £47 12s. 6d. three months. Consumers are actively employed in most branches, but demand is of only moderate dimensions at present.

Tin.

This article has been further depressed by speculative manipulation, together with a certain amount of realisation. Straits opened at £57 1s. 3d. s.c. and £57 15s. three months, and declined to £56 10s. spot on Tuesday, £56 2s. 6d. on Wednesday, and £56 1s. 3d. on Thursday. To-day we witnessed a slight improvement in demand and values, the article closing firmer at £56 2s. 6d. to £56 9s. s.c. Straits, and £56 13s. 9d. to £56 15s. three months. Billiton declined from 34s. fl. to 33s. fl. s.c. and three months, and Banca has fallen to 34 fl.

Pig Iron.

Scotch Shipments last week amounted to about 5000 tons, which was very slightly in excess of the quantity shipped during the corresponding period of 1895. In Glasgow the course of the pig-iron market has been, on the whole, downwards, s.c. opening at 46s. 7d., and arriving by Wednesday at 45s. 3d. After minor fluctuations it closes firmer again at 45s. 5d., with a month at 45s. 8d., whilst spot hematite closed at 47s. 5d. and Middlesbrough at 38s. 5d.

Lead.

Continues firm and closes at £11 6s. 3d. soft foreign and £11 10s. English.

Spelter.

Improved in value, but closes quieter, with diminished demand, at £16 10s. to £16 15s. ordinaries and £17 specials.

Antimony.

Nothing new to report. Demand is small and value unchanged at £29 to £29 10s.

Quicksilver.

Firsts close at £6 12s. 6d. and seconds at £6 12s.—i.e., unchanged

The following are to-night's (October 9) prices of metals:—

	Copper	£ s. d.
Tough cake and ingot	49 10 0	53 0
Best selected	49 15 0	51 15 0
Electrolytic Copper	50 10 0	52 10 0
Sheets and sheathing	—	57 10 0
Flat bottoms	—	60 10 0
Chill bars	spot, & 3 months respectively	47 7 8 47 12 6
Good merchantable	—	0 0 5%
Upper tubes, semi-works	—	—

	Alloys	£ s. d.
BRASS: Wire	—	0 0 5
" Tubes (solid drawn)	—	0 0 7
" Sheets	—	0 0 5%
PHOSPHOR BRONZE: Alloys II.	III. or	51 0 0
" " VII.	Cog Wheel Brand	51 0 0
" " " Vulcan brand A1	—	72 0 0
DURO METAL	—	72 0 0
BULL'S METAL	—	65 0 0

	Ferrobronze (Vivian's)	£ s. d.
Ingots	—	0 0 5%
Ordinary sheets, plates, bolts and bars	per lb.	0 0 5%
" refined	—	0 1 0
Straits, spot, and three months respectively	—	0 1 0
Australian, spot, and three months respectively	—	0 1 0
Bones	(in Holland)	0 1 0
DELTA METAL: No. 4 (per ton)	—	—
" Sheets and plates (per lb.)	—	—
" Bars, round, square, flat (per lb.)	—	—
" hexagon (per lb.)	—	78 0 3

	Tin	£ s. d.
English, Ingots, f.o.b., Clyde, spot	61 10 0	60 15 0
" bars	61 10 0	61 15 0
" refined	62 10 0	62 15 0
Straits, spot, and three months respectively	56 5 0	56 15 0
Australian, spot, and three months respectively	57 7 8	57 17 6
Bones	57 0 0	57 2 0
Fin PLATES: Charcoal, best quality	per box	0 14 0
" ordinary	—	0 11 0
" Coke, best quality	—	0 10 3
" ordinary	—	0 9 0

These prices of tiplates are f.o.b. at Swansea; at Liverpool 6d. per box more.

	Iron	£ s. d.

<tbl_r cells="3" ix="1" maxcspan="1"

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay.* Antimony; *A.* Arsenic; *Bl.* Blende; *Bx.* Borax; *C.* Copper; *D.* Diamond; *G.* Gold; *I.* Iron; *L.* Lead; *M.* Munde; *N.* Nitrates; *P.* Phosphates; *Q.* Quicksilver; *R.* Ruby; *S.* Silver; *Sl.* Silver-lead; *Sul.* Sulphur; *T.* Tin; and *Z.* Zinc. * in the "Amount of Share" column of British Mines signifies that the mine is conducted on "Cost Book" principles; *J* in the "Head Office" column of African Mines signifies that the address given is not that of the head office but of a sub, or transfer office; and *t*, following the names of African Mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

* The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share Dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that while our Share List will almost invariably be found correct, we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

AFRICAN MINES.

Name.	Closing Price, Oct. 9, 1896.	Closing Price Oct. 2, 1896.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares issued.	Situation of Mine.	Head Office.
Abbott's Con. Reefs	7/8 1/2	7/8 1/2	1 0	—	1 0 0	—	De Kaap Transvaal.	Broad Street Avenue
Adler Consolidated	1 1/2 1/2	1 1/2 1/2	1 0	—	1 0 0	257,000	De Kaap.	1, Moorgate place.
Afri. Min. Estates	1 1/2 1/2	1 1/2 1/2	1 0	2/8 rts Oct. 16 '95	1 0 0	438,03	De Kaap.	3, Cophall-building, College Hill.
" Gold Envoy	1 1/2 1/2	2/8 1/2	1 0	rts Oct. 30 '95	1 0 0	175,000	—	—
Afrikander	5 1/2 1/2	1 1/2 1/2	1 0	rts May 24 '95	1 0 0	40,000	Transvaal.	13, College Hill.
Alexander Estate	5 1/2 1/2	5 1/2 1/2	1 0	—	1 0 0	225,000	Hand.	16, George street
Angelo	3 1/2 1/2	4 1/2 4 1/2	1 0	—	1 0 0	175,000	Winchester House	2, Winchester House
Anglo-French Exp.	3 1/2 1/2	4 1/2 4 1/2	1 0	5/ Sept. 30 '95	5 0 0	30,300	S. Africa	3, Prince's street
" Matabeland	1 1/2 2 1/2	1 1/2 2 1/2	1 0	—	1 0 0	39,750	Matab. West Cost	Winchester House.
Appantos	—	—	—	—	1 0 0	77,85	West Cost	6, Old Jewry.
Aurora	1 1/2 1/2	1 1/2 1/2	1 0	5% Mar. '95	1 2 0	65,000	Rand.	7, Lothbury
" West United	1 1/2 1/2	1 1/2 1/2	1 0	—	1 0 0	100,000	—	—
Balkie Herstellung	3/8 1/2	3/8 1/2	1 0	1/ Feb. 13 '95	0 10 0	520,000	Transvaal.	85, Gracechurch-st.
" Land	4/8 5/8	5/8 5/8	1 0	—	1 0 0	520,000	Hand.	15, Geo. st., Mn Ho.
Pantjes Consol.	2 1/2 3	3 1/2 3 1/2	1 0	rts Sep. 24 '95	1 0 0	83,000	—	7, Lothbury
Barnato Bank	1 1/2 1/2	1 1/2 1/2	1 0	—	1 0 0	2,225,000	—	17, Basinghall-street
Consol.	2 1/2 2 1/2	2 1/2 2 1/2	1 0	—	1 0 0	1,000,000	—	19, St. Swithin's-lane
Barrett	1 1/2 1/2	1 1/2 1/2	1 0	—	1 0 0	207,935	De Kaap.	72, Basinghall street
Bechuanaland Exp.	1 1/2 1/2	1 1/2 1/2	1 0	rts Jy 24 '95	1 0 0	400,000	Bechuanal.	8, Old Jewry.
" Bradg. A.S.C.	1 1/2 1/2	1 1/2 1/2	1 0	1/6 July 15 '95	0 10 0	91,307	—	—
Big Golden Quarry Block "B" Lang.	3/8 1/2	3/8 1/2	1 0	—	1 0 0	483,226	Kaap Miv.	Warnford Court.
Bonanza	1 1/2 1/2	1 1/2 1/2	1 0	—	1 0 0	355,000	Hand.	5, Princes st., E.C.
Brit. A. Char.	2 1/2 2 1/2	2 1/2 2 1/2	1 0	rts Jy 26 '95	1 0 0	2,000,000	Turfont' n	120, Bishopsgate, W.
Buffelsdorp	2 1/2 2 1/2	2 1/2 2 1/2	1 0	1/6-18 Nov. 28 '95	1 0 0	999,750	S. Africa	15, St. Swithin's-lane
" Central	3/8 3/8	3/8 3/8	1 0	—	1 0 0	250,000	Potchefst.	7, Lothbury.
" Consolidated	3/8 3/8	3/8 3/8	1 0	—	1 0 0	225,000	Princess Estate	8, Old Jewry.
Cape Asbestos	3/8 3/8	3/8 3/8	1 0	—	1 0 0	50,211	Orange Rv.	Warnford Court.
" Copper	2 1/2 2 1/2	2 1/2 2 1/2	1 0	2/ June 12 '95	1 0 0	300,000	Orange Rv.	9, St. Swithin's-lane
" 6 1/2 Pref.	2 1/2 2 1/2	2 1/2 2 1/2	1 0	2/ June 12 '95	1 0 0	45,000	Cape Co.	9, Queen-st-place.
Cassel Coal.	1 1/2 1/2	1 1/2 1/2	1 0	1/5 Apr. 29 '95	1 0 0	75,000	Johanbrg.	33, Cannon-street.
Cen. de Kaap	1 1/2 1/2	1 1/2 1/2	1 0	—	1 0 0	240,000	De Kaap.	Palmerston Blids
" Roopof's Deep	1 1/2 1/2	1 1/2 1/2	1 0	—	1 0 0	220,000	120, Bishopsgate st.	28, Bishopsgate st.
Champ d'Or	1 1/2 2	1 1/2 2	1 0	3/2 Feb. 27 '95	1 0 0	116,016	Hand.	8, Old Jewry, E.C.
Charterland G.F.	9/8 9/8	2 1/2 2 1/2	1 0	—	1 0 0	150,000	Hand.	19, St. Swithin's-lane
Chimes West	2 1/2 2 1/2	1 1/2 1/2	1 0	—	1 0 0	150,000	Hand.	Winchester Ho.
City and Sub. N.W.G.	4 1/2 4 1/2	4 1/2 4 1/2	1 0	10-June '95	4 0 0	340,000	Rand.	Gresham Ho.
Con. Bultfontein D	3 1/2 3 1/2	3 1/2 3 1/2	1 0	9d. July 15 '95	1 0 0	721,500	Quigual.	63, Lombard-st.
Con. Iep Levels G	4 1/2 5/4	5 1/2 5 1/2	1 0	4/15 July 15 '95	1 0 0	187,250	Transvaal.	30, St. Swithin's-lane
Con. G. Fields S. A.	1 1/2 1/2	1 1/2 1/2	1 0	10/ May 19 '95	1 0 0	250,000	S. Africa	8, Old Jewry.
Do. 6 1/2 Pref.	1 1/2 1/2	1 1/2 1/2	1 0	7-15 Jn 26 '95	1 0 0	242,993	Hand.	—
Do. 5 1/2 Deep.	1 1/2 1/2	1 1/2 1/2	1 0	5/ July 15 '95	0 5 0	60,000	—	—
Crown Deep	1 1/2 1/2	12 1/2 12 1/2	1 0	—	1 0 0	250,000	Hand.	8, Old Jewry.
" Deep	1 1/2 1/2	10 1/2 10 1/2	1 0	C-Apr. 29 '95	1 0 0	120,000	Hand.	19, St. Swithin's-lane
Debee Consol. D	2 1/2 1/2	2 1/2 1/2	5 0	2/ July 15 '95	6 0 0	789,791	Kimberly	52, Lombard-street.
Do. 5 1/2 Deep.	1 1/2 1/2	10 1/2 10 1/2	1 0	4/2 Oct. 1-6 '95	1 0 0	63,000,000	Do. 5 1/2 Deep.	—
Do. 4 1/2 B. B. Ob.	100 102	101 102	1 0	101 102	1 0 0	2720,000	Doornkop.	Warnford Court.
Doornkop	2 1/2 2 1/2	2 1/2 2 1/2	1 0	—	1 0 0	50,200	Doornkop.	15, St. Swithin's-lane
Driefontein	2 1/2 2 1/2	2 1/2 2 1/2	1 0	—	1 0 0	175,000	Hand.	28, Leadenhall-blids.
Durban Nooddept. G	6 1/2 6 1/2	6 1/2 6 1/2	1 0	3/ Sept. 18 '95	1 0 0	125,000	Hand.	—
" Deep	3/8 4/8	4/8 4/8	—	—	—	—	—	—
Eastleigh	—	—	—	—	—	—	—	—
East. Orion	—	—	—	—	—	—	—	—
" Hand	6 1/2 6 1/2	6 1/2 6 1/2	1 0	—	1 0 0	275,000	Hand.	170, Winchester Ho.
Exploration	2 1/2 2 1/2	2 1/2 2 1/2	1 0	ts June 16 '95	1 0 0	140,000	Hand.	30, St. Swithin's-lane
Exploring L & M.	1 1/2 1/2	1 1/2 1/2	1 0	1/ Dec. 16 '95	1 0 0	215,715	Shetsa	19, St. Swithin's-lane
Ferreira	1 1/2 1/2	19 20	1 0	15/ Aug. 25 '95	1 0 0	45,000	Hand.	53, Lombard-st.
French Band	2 1/2 2 1/2	2 1/2 2 1/2	1 0	—	1 0 0	480,000	Hand.	28, Leadenhall-blids.
Goldenhuis Deep G	4 1/2 4 1/2	5 1/2 5 1/2	1 0	6/ Jy 26 '95	1 0 0	265,000	Transvaal.	30, St. Swithin's-lane
Goldenhuis Est. G	3 1/2 3/8	3 1/2 3/8	1 0	2/ Feb. 13 '95	1 0 0	187,000	Hand.	120, Bishopsgate st. W.
" Main Reef	10 1/2 10 1/2	10 1/2 10 1/2	1 0	7/ July 1 1/2 '95	1 0 0	150,000	Hand.	75, Lombard Street.
George Goch	10 1/2 10 1/2	2 1/2 2 1/2	1 0	1/10 June '95	1 0 0	100,000	Hand.	75, Lombard Street.
Ginsberg New G	2 1/2 2 1/2	2 1/2 2 1/2	1 0	—	1 0 0	130,000	Driston.	Warnford Court, E.C.
Glencairn	2 1/2 2 1/2	2 1/2 2 1/2	1 0	rts Sep. 30 '95	1 0 0	200,000	Hand.	2, Drapers-gardens.
Golden Dove	1 1/2 1/2	1 1/2 1/2	1 0	—	1 0 0	60,000	Natal.	65, Chancery Lane.
G'd. P's. Deep... G	8 1/2 8 1/2	10 10 1/2	1 0	rts May 14 '95	1 0 0	240,000	Hand.	3, Old Jewry.
G. P. of. Mashonid.	2 1/2 2 1/2	2 1/2 2 1/2	1 0	—	1 0 0	200,000	Hand.	7, Lothbury.
G. P. of. T.d. Fuego	14 1/2 16 1/2	14 1/2 16 1/2	1 0	2/ Sept. 30 '95	1 0 0	588,672	Klerksdorp.	8, Old Jewry.
Graskop	2 1/2 2 1/2	2 1/2 2 1/2	1 0	5/ Mar. '95	0 5 0	400,000	Hand.	75, Lombard Street.
Gt. est. Col. Colliery	2 1/2 1/2	1 1/2 1/2	1 0	—	1 0 0	376,686	Lydenburg	5, Old Jewry.
Gt. est. Min. Colliery	7 1/2 8 1/2	8 1/2 9 1/2	1 0	4/ July 15 '95	10 0 0	105,700	Hand.	2, Tokenhouse Blids.
Griqualand W... D	2 1/2 2 1/2	1 1/2 1/2	1 0	—	1 0 0	125,000	Hand.	62, Lombard-st.
Heidelberg. Est. Ex.	3/8 3/8	3/8 3/8	1 0	—	—</			

"THE MINING JOURNAL" SHARE LIST—(Continued)

AUSTRALIAN AND NEW ZEALAND MINES.

AUSTRALIAN AND NEW ZEALAND MINES—(Continued)

Name.	Closing Price, Oct. 9, 1896.	Closing Price, Oct. 2, 1896.	Am't. of Share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Waini....., G.	6 1/2 8 1/2	6 3/4 8 5/8	1/	2/- Sept 16 '96	1 0 0	187,000	Tu'ams NZ	11, Abchurch-in-E. C.
" G. Junction	1 1/4	1 1/8 1 1/4	1/ 0	—	1 0 0	110,000	U Thune NZ	18, Finsbury Circus
" Silverton	2 3/4 6 2/8	1 1/2 2 1/2	1 0	—	1 0 0	60,000	Oh'n'mi NZ	23, College Hill
Waikeauri	4 1/2 4 1/2	4 1/2 4 1/2	1 0	—	1 0 0	136,000	Wk'urinz	11, Abchurch Line
" Central	7/8 8 6	7/8 8 6/8	10/-	—	0 7 6	120,000	"	63, New Broad St.
" Gross	1 1/4	1 1/4 1 1/4	1 0	—	1 0 0	120,000	"	19a, Coleman Street
" Extended	8/ 9/	8/ 9/	10/-	—	0 10 0	130,000	Ha'raki, NZ	63, New Broad St.
" United	15/ 15/ 14/	15/ 15/ 14/	1 0	—	1 0 0	51,000	Finsbury House.	"
Waratah....., G.	12/8 13/8	12/8 13/8	10/-	—	0 10 0	100,000	Crydn, N Z	43, Threadneedle St.
Water Trust Min.	3/4 3/4	3/4 3/4	1 0	—	1 0 0	W. Austral	Broad Street House	"
W. of Nations	5/1 1/4	5/ 1	1 0	—	0 15 0	"	77, Bishopsgate-st.	
Wentworth, G.	7/8	7/8	1 0	1/ - Apr 15 '96	1 0 0	500,000	N. S Wales	4-6, Throgmorth Av.
W. A. Develop's.	1 1/4	1 1/4	1 0	rts May 14 '96	1 0 0	50,000	"	49-53, Moorgate court
W. A. Aust.G. Conces.	1 1/2 1 1/2	1 1/2 1 1/2	1 0	2/6 Sept 16 '96	1 0 0	255,000	W. Austral	33, Old Broad st., E.O.
W. A. Mr. & Fin.	4 1/2 4 1/2	4 1/2 4 1/2	1 0	rts Mar. 27 '93	1 0 0	200,000	"	51,
W. Australian G.F.	6 1/2 6 7/8	7 1/2 7 3/8	6/-	July 30 '96	1 0 0	65,000	Coolgardie	25-29, S. Swithin
" " Mines Dvl	1 1/2 1 1/2	1 1/2 2 2/8	1 0	10/ Oct 30, 95	0 15 0	42,000	W. Austral	3, Princes Street
Aust. Mining	7/ 8/-	7/ 8/-	5/	7 1/2 Mar. 17 '96	0 5 0	320,000	"	47-52, Winchester Hs.
Aust. Pioneer	19/10/11/14/	15/16 15/16	1 0	10/ June 12 '96	0 15 0	19,993	"	139, Cannon-street.
Share Corp.	5/ 6/	5/ 6/	1 0	—	0 10 0	230,000	"	28, St. Swithin's in
Venture	1 1/2 2 2/8	1 1/2 2 2/8	1 0	15/ Oct. 30 '95	0 15 0	"	2, Princes Street.	
West Boulder	9/10 11/12	9/ 11/	3/4	—	—	—	—	—
White Feather	1 1/2 2 1/2	1 1/2 2	1 0	—	1 0 0	60,000	Coolgardie	28 & 29, S. Swithin's in
Woodstock	2 1/2 2 1/2	2 1/2 2 1/2	1 0	—	1 0 0	137,500	Krungk'hz NZ	6, Drapers Gardens
Zeehan Montana S	par	par	1 0	-/4 Dec. 95	1 0 0	66,000	Tasmania	11, Queen Victoria
" "	—	—	1 0	2 1/2 Dec. 95	0 2 6	12,000	"	"

EUROPEAN MINES.

NORTH AMERICAN MINES.												
Alaska Mexican ...G	1 1/2	2	1 1/4	1 1/4	95	4-5d. Feb. '96	95	173,500	Alaska....	30, St. Swithin's-in-		
Treadwell G	4 1/2	5 1/2	5	5 1/2	825	1/ June 30, '96	825	200,000		"	"	
Anaconda .....G	8 3/4	6 1/2	8 3/4	5 1/2	825	10% May. 9, '96	825	1,200,000	Montana...	"	"	
Arizona (Prof.) Cu	50/6	51/4	52/3	62/9	4 0	1/6 July 15, '96	4 0 0	158,920	Arizona ...	74, Geo-st., Edinbor		
" 6 1/2 A Deben.	109	110	111	100 0	6 1/2 May 14 '96	100 0 0	135,300		"	"		
" 7 1/2 B Deben.	99 1/2	100	101	100 0	7 1/2 May. 14 '96	100 0 0	181,300		"	"		
De Lamar.....GS	11/8	13/3	13/	14/	1 0	1/- Feb. 13 '96	1 0 0	400,000	Idaho.....	6, Drapers-gardens,		
Dickens Custer GS	—	—	—	1/	1 0	—	0 19 9	420,000	Winchester Ho. E.C.			
Dorito.....G	6/6	7/6	6/6	7/6	5/	—	0 5 0	125,000	Colorado...			
Gen. M'g. Assoc. ...	5 1/2	6	5 1/2	6	5 10	12/- May 14 '96	5 10 0	27,469	C. Bretton	Bloomfield House.		
Golden Feather G	3 1/2	3 1/2	3 1/2	3 1/2	1 0	—	1 0 0	180,000	California	8, Stephens C's E.C.		
" Gate .....G	2 1/2	3 1/2	2 1/2	3 1/2	1 0	—	0 19 6	78,600		"		
" Leaf.....G	—	1/3	—	1/3	1 0	—	1 0 0	300,453	Montana	8, Draper's Gardens		
Hall Mines	12 1/2	11 1/2	12 1/2	11 1/2	1 0	—	1 0 0	250,000	Brit. Col.	1, Leadenhall St., EC		
Harquahalia ... G	5 1/2	5 1/2	1/2	2 1/2	1 0	—	1 0 0	300,000	Arizona	6, Draper's Gardens		
Holcomb Valley G	1/2	1 1/2	—	1/2	5/	—	0 5 0	540,300	California	14, Cornhill, E.C.		
Jackson Goldfields	—	—	1/0	3	5 0	—	0 5 0	408,635		11, Poultry, E.C.		
La Plata.....GS	3/3	9	3/3	9	5/	1/3 Oct. '92	0 4 6	405,000	Poultry	11, Poultry, E.C.		
La Yeso.....GS	—	9/1 3	—	9/1 3	1 0	—	0 19 6	200,000	Mexico	20, Bucklersbury, EC		
Montana .....GS	2/6	3/6	4/	4/6	1 0	—	0 19 0	857,158	Montana	Gresham House, E.C.		
Palomarejo .....GS	1/6	2/	2/	2/6	1 0	—	1 0 0	418,888	Mexico ...	32, Old Jewry, E.C.		
Pinos Altos (Df) GS	—	—	—	5/ 1/2	1 0	—	1 0 0	100,000	"	110, Cannon-street.		
Richmond ...GSL	3/	1 1/2	3/	1 1/2	5 0	1/- Dec. 16 '95	6 0 0	64,000	Nevada ...	44, Coleman-street.		
Sierra Butter ...G	5 1/2	3 1/2	5 1/2	3 1/2	2 0	—	2 0 0	122,500	California	133, Leadenhall-st		
" Plumas Eur. G	3 1/2	3 1/2	3 1/2	3 1/2	2 0	—	2 0 0	140,265		"		
Springdale.....G	1/8	1/2	—	1/2	—	—	—	1,000,000	Colorado	20, Abchurch L... 20, Abchurch L... 20, Abchurch L... 20, Abchurch L...		
Twin Lake Placers	1 1/2	1 1/2	7/	1 1/2	1 0	3/- Feb. '95	0 0	6,002		5, Lawrence E.C.		

NORTH AMERICAN MINES

SOUTH AND CENTRAL AMERICAN MINES.																
Anglo-Chilian Pt. N	8 1/4	8 1/4	8 1/4	8 1/4	10	0	7/0 Feb.	27 '96	10	0	0	35,000	Antofagast.	123, Bishop's-st. W		
,, 8% Rylest MB	91	95	94	98	100	0	6 1/2	July 1 '96	100	0	0	£200,000	"	"		
Argen. Concessions	/3	/0	/3	/0	2/	—	—	—	0	2	0	150,000	S. Luis	3 & 5, Queen Street.		
Caylloma.....S	13 1/2	15 1/2	76	1	2	0	1/— Apr.	84	2	0	0	125,000	Peru	52, Londonhill strae		
Colorado Nit. ....N	5	1	5	1	5	0	2/6 Dec.	16 '95	5	0	0	38,000	Chili	12, King-st., Liverp'		
Colembian Hy...G	5 1/2	5 1/2	5 1/2	5 1/2	1	0	1/— Jy 26 '95	—	1	0	0	75,000	Colombia	10, Blomfield-street		
Copiapo	C	2 1/2	2 1/2	2 1/2	2	0	1/— May 29 '96	—	2	0	0	100,000	Chili	.....	
Darien "A" ....G	6	6 1/2	6 1/2	6 1/2	1	0	—	—	1	0	0	48,553	Colombia	.....	
,, "B".....	7 1/2	7 1/2	7	7 1/2	1	0	x.nw Apr 29 '96	—	1	0	0	30,000	"	Manchester.		
El Callao	G	3	3	3	3	0	9 1/2 d. Feb.	29 '94	5	0	0	£57,600	Venezuela	8, Bishopsgate-st. Wm		
Frontino & B...G	1 1/2	1 1/2	1 1/2	1 1/2	1	0	9d. July 15 '94	—	1	0	0	128,682	Colombia	184, Greaham House		
Glenrock	G	1	1	1/2	1/2	1/2	1/2	1/2	1	0	0	192,948	Arg. (& I.)	3-5, Queen-street, E.		
Guadalupe	GS	—	—	—	3/0	5/	1	0	—	1	0	120,000	Honduras	1a, Union ct, Old brd		
Javá'l	G	/8	1/6	1/6	2/6	2/—	—	—	0	2	0	105,769	Nicaragua	139, Cannon-street.		
Lagunas	N	1 1/2	2 1/4	2 1/4	2 1/4	5	0	15p.c. Dec.	29 '94	5	0	0	120,000	Tarapaca	3, Gracechurch st;	
Lautaro	N	5 1/2	6	5 1/2	6	5	0	5/— June 26 '96	—	5	0	0	110,000	Chili	70,	
Liverpool	N	7 1/2	8 1/2	7 1/2	8 1/2	5	0	15/— May 1, '96	—	5	0	0	22,000	"	Liverpool.	
London Nit.....N	2	2 1/2	2	2 1/2	3	0	3/4 1/4 Nov.	28 '95	5	0	0	10,000	—	9, Gracechurch-st.		
,, Nit. (PreL)	3 1/2	4	3 1/2	4	5	0	8 1/2 Nov. 28 '95	—	5	0	0	22,000	"	"		
New Julia.....N	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
,, Tamargal N	1 1/2	3 1/2	1 1/2	3 1/2	1	10	1s. Dec.	29 '94	1	10	0	130,000	Tarapaca	50, Lime-street, H.C.		
,, 8% Com Pref	2 1/2	2 1/2	2 1/2	2 1/2	1	10	8 p.c. Feb.	25 '95	1	10	0	130,000	"	"		
,, 8 p.c. Debts	10	82	73	82	100	0	8 p.c. Feb.	26 '96	100	0	0	£260,000	"	"		
Orita	G	—	—	1/0	1/6	1	0	1/— April	18 '94	1	0	0	30,000	Colombia	10, Blomfield-street	
Ouro Preto	G	—	—	—	—	—	1	0	1/— Feb.	28 '96	1	0	0	80,000	Brazil	6, Queen-street-plac.
Pao & Jazpampa N	M	1	3/4	1	5	0	4/— May	19 '95	5	0	0	72,000	Tarapaca	3, Gracechurch-st.		
Phoenix	M	1	1/2	1/2	1/—	10/—	—	—	0	8	0	400,000	S. Luis	3 & 5, Queen Street.		
Rosario	N	4 1/2	5 1/2	4 1/2	5 1/2	6	0	3/— Aug. 12 '95	—	5	0	0	120,000	Chili	7 1/2 Old Broad-stre	
,, (5% Deb.)	102	105 xd	102	105 xd	100	0	2/— Oct.	1 '96	100	0	0	£475,000	"	"		
,, Hu'y Dm	103	105	103	116	100	0	2/— July 1 '96	—	100	0	0	£200,000	"	"		
St. John del Rey G	M	8	M	7 1/2	1	0	x.nts Nov. 12 '95	—	1	0	0	32,750	Brazil	Finshy, Bim'd s		
San Donato	N	3 1/2	24	3 1/2	24	0	2/5 Dec. 24 '95	—	32,000	Chili	12, King-st., Liverp.					
,, Jorge	N	4 1/2	5 1/2	4 1/2	5 1/2	0	2/6 May. 29 '96	—	58,000	"	—					
,, Pablo	N	1 1/2	1 1/2	1 1/2	1 1/2	0	5/ Oct. 30 '95	—	32,000	"	—					
,, Sebastian	N	7	1 1/2	7	1	0	2/ July 15 '96	—	28,000	"	Dashwood House					
Santa Barbara	G	36	36	34	2 1/2	10	1/3 Dec.	28 '96	0	10	0	60,000	Brazil	Liverpool		
,, Elena	N	36	36	36	36	0	5/— Nov. 15 '94	—	22,000	Tarapaca	3, Gracechurch-st.					
,, Rita	N	3 1/2	4 1/2	3 1/2	4 1/2	0	10/ May 23 '96	—	22,000	Chili	Dashwood House, E.					
Tolima "A"	S	5 1/2	5 1/2	4 1/2	5 1/2	5	0	5/— Mar. 13 '96	—	5	0	0	14,000	"	18, Finbury-circus	
,, "B"	S	1	1 1/2	3 1/2	4 1/2	0	5/— Mar. 13 '96	—	5	0	0	4,000	"	"		

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes October 8:—The Mining Market shows a general stagnation on the continuous reduction of the tin standard, heavy statistics, and unsatisfactory result of Tuesday's sale at an average decline of 22s. a ton on previous sale. Quotations:—Basset United (Limited), 15s. to 16s.; ditto (5s. paid), 4s. to 4s. 6d.; Blue Hills, 2s. to 2s. 6d.; Carn Brea United 1s. 6s. to 2s.; ditto (2s. 6d. paid), 2s. to 2s. 6d.; Devon Consols, 17s. 6d. to 18s. 6d.; Dolcoath (Limited), 15s. 6d. to 16s. 6d.; ditto (7s. 6d. paid), 5s. 6d. to 6s.; East Pool, 16s. to 17s. 6d.; Killifreth, 1s. 6d. to 2s.; Levant, 2 to 2s.; Polberro, 7s. 6d. to 8s. 6d.; West Kitty, 2 to 2s.; Wheal Grenville, 5 to 5s.; Wheal Kitty, 2 to 2s.; Wheal Metal, 3s. 6d. to 4s.

Messrs. ABBOTT and WICKETT, Stock and Share Brokers and Mining Share Dealers, Redruth, write under date of October 8:—The market has been dull all the week, and only a very few transactions have been recorded, and at the moment business is practically suspended, holders cannot afford to sell, and until tin turns it is not probable that buyers will come forward, it being evident that tin cannot be produced in Cornwall to be sold in ingots at £60 per ton. Quotations herewith:—Blue Hills, 1s. to 2s.; Basset Mines (fully paid), 2s. to 2s.; ditto (5s. paid), 4s. to 5s.; Dolcoath (fully paid), 16s. to 17s.; ditto (7s. 6d. paid), 4s. 6d. to 5s. 6d.; East Pool, 2 to 1s.; Killifreth, 2 to 2s.; Polberro, 2 to 2s.; West Kitty, 1s. 6d. to 2s.; Wheal Grenville, 4 to 5s.; Wheal Kitty, 2 to 2s.; Wheal Metal (3s. paid), 3s. 6d. to 4s.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write October 8 (12 noon):—Markets during the past week have presented a very weak appearance, and the expression applies to the whole of the foremost markets, excepting perhaps that for foreigners, in which the changes are more evenly divided. The chief feature of weakness has centred round the South African department, and it has been reflected in other directions, fears of trouble at the ensuing settlement being freely discussed. As regards English rail, notwithstanding that the political outlook is clearer, and the continuance of very decent traffic, are lower all round (the only exception being in Lancashire and Yorkshire), the fall having ranged from 2 to 3 in Sarnia to as much as 14 to 2 in two or three instances. In Americans prices are lower all round, there being in this department no contradictory movement. Fluctuations have certainly occurred since our last issue, and prices in the meantime have been better; but this market has been entirely unable to shake off the general feeling of uneasiness, and are consequently weaker, notwithstanding that advices from New York regarding the monetary situation there are distinctly more favourable. Canadians and Mexicans are also lower in sympathy, but in these very little business has been reported, dealings being at present almost entirely professional. Consols mark a decline of 2 to 3, and in this instance there has doubtless been some "bearing" going on, as a ledge against speculations for the rise in other departments. With respect to Colonial stocks several of the registered and inscribed issues have improved, the recent figures having doubtless looked tempting to investors, and a recovery is also shown in many English Corporation stocks, but we need not particularise these, as changes can be seen at a glance from the list which follows. A fair amount of business has been done in miscellaneous shares, this having proved the only market in which there has been any amount of activity.

ENGLISH RAILS.—Higher: Lancashire and Yorkshire, 2 to 3.—Lower: Cora, 2 to 2s.; Great Eastern, 1; York Deferred, 2s.; Great Western, 1; Brighton A, 1s.; Chathams, 2 to 2s.; London and North Western, 2; Sheffield A, 2 to 2s.; Districts, 1s. to 1s.; Midlands, 1; North British, 2; Berwicks, 1s.; Dover A, 1s.

CANADIANS AND AMERICANS.—Lower: Atchisons, 2 to 3; ditto Preference, 1; Trunk Ordinary, 1-16; ditto First Preference, 1 to 1s.; ditto Second Preference, 1; ditto Third Preference, 2 to 2s.; Mexican Rail, 2; ditto First Preference, 1; ditto Second Preference, 2; Central Pacific, 2; Milwaukee, 1s.; Denver, 2 to 2s.; ditto Preference, 2 to 2s.; Louisville, 1 to 1s.; Missouri, 2; New York Central, 1s.; Erie, 2 to 2s.; Ontario, 2; Norfolk Preference, 2 to 2s.; Reading, 2; Union Pacific, 2.

CONSOLS.—Lower: 2.

COLONIAL STOCKS, &c.—Higher: Canada Registered, 2; Natal Inscribed, 1; New South Wales Inscribed, 2 to 3; Victoria Inscribed, 1.—Lower: Cape of Good Hope Inscribed, 1.

CORPORATION STOCKS AND DEBENTURES.—Higher: Batley Three per Cent., 2; Birmingham Three per Cent., 1; Hull Three and a Half per Cent., 2; Liverpool Three and a Half per Cent., 3 to 4; Nottingham Three per Cent., 2.—Lower: Bristol Three and a Half per Cent., 1.

FOREIGNERS.—Higher: Argentine Six per Cent., 1 to 1s.; ditto Five per Cent., 2; Egypt Unified, 2; Italian Rentes, 2; Mexican Six per Cent., 1; Turks D, 2; United States Four per Cent., 1.—Lower: Brazilian Four per Cent., 2; Russian Four per Cent., 2; Spanish Four per Cent., 2.

BANKS.—Higher: Bank of Liverpool, 2; Lower: District, 2 to 3; Union of Manchester, 2 to 3; W. D. and Manchester and Salford, 2.

INSURANCE.—Higher: British and Foreign Marine, 2; Liverpool, London, and Globe, 2; London and Lancashire, 2; Royal, 2.—Lower: Equitable Fire, 66; Guardian, 2.

COAL, IRON, &c.—Higher: Bolckow, Vaughan (£20 paid), 2; ditto (£12 paid), 11-16; Sheepbridge A, 2; Lower: Rhymney New, 6s.; Ruston Proctor, 2; Staveley A, 2.

TELEGRAPHHS AND TELEPHONES.—Higher: Anglo-American, 2; ditto Deferred, 2; ditto Preferred, 1s.—Lower: National Telephone, 2.

BREWERY.—Higher: Guinness, 20; Parker's, 2; Showell's, 2.—Lower: Chester's, 2.

MISCELLANEOUS.—Higher: Bowman Thompson, 2 to 2s.; Brunner Mond New, 1; Fowler Brothers, 2; Henry's, 1-16; Howard and Bullough, 1s.; Jones's Sewing, 1-16; Pacific Steam, 1s.; Rylands and Sons, 2; West India and Pacific, 1; Gas Light A, 3; Railway Debenture Trust, 2.—Lower: Coats's Ordinary, 1; Canard Steam, 2; Manchester Royal Exchange, 1; Salt Union, 3-16; United Alkali, 1-16.

LATER (4 P.M.).—The market has been very irregular all day, though home rails are quoted rather better on balance. Americans have given way 2 to 2s. per cent., New York advices being rather disappointing. South Africans, after fluctuating, leave off at last night's level. Rio Tinto, 3s. 6d., easier.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (October 8), writes:—During the past week there has been less business doing, owing to the uncertain state of the Eastern Question, which has kept back buyers, while a number of sales had to be made at lower prices for weak holders. Trade reports continue satisfactory, and the money market is easier.

In shares of coal, iron, and steel companies, prices are generally better. Ascoff Coal offered. Cassel Coal are at 37s. 6d., Marbella, 29s., Niddrie, 40s., and Steel Company of Scotland 5 1-16.

In shares of copper concerns there is very little alteration. The Rio Tinto dividend has been announced at 18s. per share, which is satisfactory, and compares with 10s. per share at this time last year. Arizona are lower at 52s. Tinto touched 24s., and Tharsis 11s., but both are now easier.

In shares of gold and silver mines prices have been flat. Among the leading shares Chartered touched 53s. 9d., Gold Fields 10 11-16, East Ran 5s., and Randfontein 47s., but on the announcement that

a large weak account had been taken over a recovery has set in. It is stated the native labourers in the Transvaal have agreed to reduced wages, but it is still to be desired that the state of politics there should become more settled. African Recovery have been a flat market from 16s. 9d. down to 38s., and it is now announced that no dividend is to be paid at this time. Indian mines are also lower, notwithstanding their crushings for last month are remarkably good. African Estates are at 30s.; Associated Southern, 27s. 6d.; Africander, 31s. 3d.; Bayley's No. 2 South, 9s. 6d.; Broken Hill, 49s. 6d.; Bendigo Gold Fields New, 26s. 3d.; Bonnie Dundee, 7s. 6d.; Bantjes, 57s. 6d.; Brownhill Proprietary, 6s. 3d.; Croydon Consols, 8s.; Cassel, 17s. 6d.; East Sheba Reefs, 2s. 6d.; Emma, 2s.; Golden Sceptre, 2s. 6d.; Gem of Cue, 2s. 6d.; Gold Fields of Mysore, 21s. 3d.; Ginaberg, 43s. 9d.; Gold Fields of Uruguay, 24s. 6d.; Gold Estate of Australia, 37s. 6d.; Hannan's Golden Treasure, 30s.; Holcomb Valley, 1s.; Hannan's Star, 23s. 9d.; Hainault, 32s. 6d.; Hit or Miss, 33s. 9d.; Hauraki Associated, 3s.; Irene Hauraki, 4s.; Kathleen, 3s.; Klerksdorp, 9s. 6d.; London-Paris Finance, 17s. 6d.; La Plata, 9d.; Leechdale Rhodesia, 11s. 9d.; Lake View Extended, 27s. 6d.; Langlaagte Block B, 30s.; Lisbon, 5s. 3d.; Murchison Gifts, 3s.; Murchison New Chums, 7s.; Murchison Gold Diamond, 2s.; Mount Charlotte, 22s. 6d.; Massi Kessi, 7s. 6d.; Newfoundland Colonization, 2s.; North Croydon, 3s. 6d.; Orion, 17s. 6d.; Oceana Development, 8s. 9d.; Pilbara Gold Fields, 15s.; Princess Royal 3s. 6d.; Rhodesia, 25s.; Robinson Randfontein, 25s.; South African Mining Syndicate, 2s. 9d.; True Blue, 6s. 3d.; United Rhodesia, 18s.; United Gold Fields of Manica, 10s. 9d.; Umtali Reefs, 6d.; Violet, 20s. 6d.; Victory, 1s. 6d.; W. A. Concessions, 26s. 3d.; and Wealth of Nations 20s. 6d.

In shares of miscellaneous companies there is not much alteration. Oil companies shares are generally firmer, Broxburn being at 9s. Hermon 1s. 6d., and Young's 28s. Field's Candle Six per Cent. Preference are at 12, Glenboig Fire-Clay 7s., Nobel's Dynamite 18s., Paccha and Jaspampa Nitrate 17s. 6d.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69 Hanover-street, Edinburgh, report as follows under date of October 8:—The market has been depressed during the past week, In Railways, Caledonian Deferred stock has receded from 57s. to 56s., North British from 44s. 16-16 to 43s., Brighton Deferred from 17s. to 17s. 2s., North Eastern from 17s. to 17s. 2s. There has been no general change in preference or debenture stock. In insurance shares, Northern have declined from 7s. to 7s. 6d., Life Association of Scotland from 41 to 40, Liverpool, London, and Globe from 54 to 53s., Standard Life from 58 to 56s. London and Lancashire have improved from 18s. to 19s., Scottish Metropolitan from 43s. to 44s. There are only a few changes in bank shares. Commercial have risen from 74s. to 76s. National have declined from 36s. to 36s. 6d. Scottish South African shares have fallen, from 60s. 6d. to 55s. 6d. Scottish American Investment have risen from 60s. to 61s. African Gold Recovery have gone back from 46s. 9d. to 38s. 3d. Distillers are 10s. higher at 20s. Coat's have declined from 58s. to 57s.

THE IRON AND STEEL MARKET.

The following is the Weekly Report of Messrs. BARRY, HEAD, and Co., dated October 7:—

TO-DAY'S APPROXIMATE BASIS PRICES, WITHOUT ENGAGEMENT.

	Price per ton.	F.o.b. at	Less discount. per cent.
IRON.—			
Superior Crown Bars	£5 7 6	Middlebros'	3
Common Bars	5 5 0	do	3
Ship Plates	5 2 6	do	3
Ship Angles	5 0 0	do	3
Single Sheets	7 5 0	do	3
Padded Bars	3 10 0	do	nett.
STEEL.—			
Bars	6 0 0	do	3
Ship Plates	5 5 0	do	3
Ship Angles	5 0 0	do	3
Hoops and Strip	6 5 0	do	3
Charler Shoe Bars	6 10 0	do	3
Cat Nails	7 5 0	do	7 1/2
Heavy Rails, 56 lbs.	4 15 0	Works Port	nett.
Light Rails, 14 lbs.	5 5 0	do	do

Messrs. JNO. STEVENSON and COWPER in their weekly report, dated Middlesbrough and Newcastle-on-Tyne, October 8, state:—The Cleveland Ironmasters' return shows two additional furnaces on hematite and an output of 2000 tons above August, although a shorter month by one day. The most remarkable item in the report is the reduction in stocks of 46,383 tons, which is largely in excess of all expectations. The effect of this announcement was a rise in warrants, but the excitement did not last long, and they are now little better than last week. Makers' prices are firm at 38s. 6d. for No. 3 G.M.B., with other numbers at the usual differences. Hematite is quoted at 46s., a price not equivalent to the increased cost of production, best rubic ore having advanced to 14s. c.i.f. Tees. Makers are cautious about buying at this figure and to committing themselves to forward sales. Reports are also favourable from the West Coast, where one of the furnace works is standing owing to a sudden strike of a section of the men. Bar iron continues in good demand, and steel plates are firm at £5 5s., less 2s. per cent. at the works. Coke is unaltered. Coal is better for gas making and house consumption, but there is no improvement in manufacturing qualities. The Glasgow market closed this afternoon—"steady, small business." Scotch 4s. 4d., Cleveland 38s. 5d., Cumberland Hematite 47s. 5d., and Middlesbrough hematite 45s. 6d., cash sellers.

THE return of William C. Ralston from a long visit to the East has been followed (says the *San Francisco News Letter*) by the resumption of work upon the old Melones Mine, one of the historic gold properties of the State. Eastern men have subscribed the necessary capital, through the efforts of Mr. Ralston, to develop the vast resources of this mine, which in the upper workings has already produced a phenomenal amount of gold. This is one of the richest mining sections of the State, and the northerly extension of the Melones, known as the Morgan, proved a bonanza from the grass roots down to where work was stopped by litigation. The new owners of the Melones have started work in the old Stanislaus tunnel, reopened by Mr. Ralston before he went East, and already the showing of ore is sufficient to corroborate all statements made in past or present about the value of the ground. Work is now proceeding under the direction of Mr. Ralston for the present, and no expense will be spared to carry it on as it should be when good common sense, business tact, and practical experience are backed by ample capital. The indefatigable zeal which Mr. Ralston has at all times shown on behalf of the advancement of the mining industry of the State at home and abroad, entitles him to the best wishes of every one interested in the welfare of the business for success in his latest enterprise.

THE GERMAN IRON TRADE.—Some additional particulars are now available regarding the new blast furnace plant which is at present in course of construction on the sea coast near Stettin, Germany. There will be two blast furnaces of modern design, equipped with eight Cowper stoves. In addition the concern will produce its own coke, a battery of 90 coke ovens being at present in course of erection, while it has also been decided to establish an engineering department. It is intended to principally use Swedish ore which can be laid down at the furnaces at a very cheap rate. A blast furnace which has for some time been in course of reconstruction at the Hoesch Iron and Steel works at Dortmund has just been lighted.

REPORTS FROM THE MINES.

BRITISH MINES.

LEADHILLS.—W. H. PAUL, October 5: Brown's vein. In steps over the 20 fathoms level, north of Jeffrey's shaft, the vein is 4 feet wide producing 20 cwt. of lead ore per fathom. In drift south over same level of rock and shaft to vein now yields 5 cwt. of ore per fathom. In a drift south of the vein over same level the vein is improved now 5 feet wide, worth 15 cwt. of ore per fathom. The vein in the 65 fathoms level driving south of Wilson's shaft 5 fathoms level driving north of main rise the vein has improved and now yields 18 to 20 cwt. of lead ore per fathom. At Gripp's adit going south of the vein the vein is still disorderly by cross joints and is rather soft for producing ore. The various steps on this vein are producing their usual quantities of lead ore. Rake vein. There is no change in the drivings at the 100' and Gripp's adit level on this vein, nor in the ground in crosscut eastward at the 100' and 70 fathoms level driving towards the vein.—Dobies vein. Gripp's adit on this vein is going for a distance, which contains a strong mixture of spar spotted with lead ore. Trial and yielding 35 cwt. of lead ore per fathom. Surface work is in a bindy vein regularly. We have had some very heavy showers of snow and rain and the ground has a wintry appearance.

LEADHILLS SILVER-LEAD MINING AND SMELTING.—Half-yearly report: Leadhills, Lanarkshire, September 25: In accordance with your request chief works carried out since April last: Brown's vein. The 160 fathoms level has been driven 10 fathoms 4 feet 9 inches north of Jeffrey's shaft. In the first 6 feet of this driving the vein yielded stones of lead ore, the next 15 feet produced 25 cwt. of ore per fathom, and remaining 7 fathoms 2 feet 6 inches contained stones of ore at times.

This level is now extended 112 fathoms and 2 wins below the 160 fathoms level to a depth of 190 fathoms. The 160 fathoms level has been extended 112 fathoms 2 feet 6 inches south of the 160 fathoms level to a depth of 190 fathoms. The 160 fathoms level is composed of lead ore, not enough to work at present, but improvement is expected soon. The 165 fathoms level has been advanced 16 fathoms 5 feet 6 inches in unproductive ground, is now 221 fathoms 1 foot 9 inches south of Wilson's shaft, and within 2 fathoms of reaching Brown's vein. In this forebreast the vein is 3 feet wide, composed of stone and sand, but no mineral to value. The 50 fathoms level has been driven 14 fathoms 1 foot 6 inches north of main rise, and opened out some 24 fathoms of productive ground, worth 35 cwt. of ore per fathom. A communication has been made here between the 50 and 70 by rising and sinking in order to take away the overburden, of lead ore per fathom. The above points, with three steps above the 160', were suspended in July, owing to the long drought causing our reservoir to run out, stopping the pumping wheels, and the water rising in those workings. We have now a good supply of water, reservoir being nearly full, and the lower workings are being drained as fast as our pitwork will allow. It will take us some months yet to get it all out, the pumps baling so small, but we hope to resume working over the 180 fathom level in about two months' time. The vein in the steps over the 115 fathoms level north of Jeffrey's shaft is yielding 25 cwt. of ore per fathom. In rise and drift south above the same level the vein is 4 feet wide, composed of spar and stone, spotted with lead ore, but not enough to work at present. This vein is 180 fathoms level has been extended southwards 15 fathoms 1 foot 6 inches south of Wilson's shaft, which is 25 cwt. of ore per fathom. In rise and drift south above the same level the vein is 4 feet wide, composed of spar and stone, spotted with lead ore, but not enough to work at present. This vein is 180 fathoms level has been extended southwards 15 fathoms 1 foot 6 inches south of Wilson's shaft, which is 25 cwt. of ore per fathom. In rise and drift south above the same level the vein is 4 feet wide, composed of spar and stone, spotted with lead ore, but not enough to work at present. This vein is 180 fathoms level has been extended southwards 15 fathoms 1 foot 6 inches south of Wilson's shaft, which is 25 cwt. of ore per fathom. In rise and drift south above the same level the vein is 4 feet wide, composed of spar and stone, spotted with lead ore, but not enough to work at present. This vein is 180 fathoms level has been extended southwards 15 fathoms 1 foot 6 inches south of Wilson's shaft, which is 25 cwt. of ore per fathom. In rise and drift south above the same level the vein is 4 feet wide, composed of spar and stone, spotted with lead ore, but not enough to work at present. This vein is 180 fathoms level has been extended southwards 15 fathoms 1 foot 6 inches south of Wilson's shaft, which is 25 cwt. of ore per fathom. In rise and drift south above the same level the vein is 4 feet wide, composed of spar and stone, spotted with lead ore, but not enough to work at present. This vein is 180 fathoms level has been extended southwards 15 fathoms 1 foot 6 inches south of Wilson's shaft, which is 25 cwt. of ore per fathom. In rise and drift south above the same level the vein is 4 feet wide, composed of spar and stone, spotted with lead ore, but not enough to work at present. This vein is 180 fathoms level has been extended southwards

but it is more difficult to get at the stone, as the fairly large under which I had been following now periodically splits into two or three small ones, which are troublesome to follow until they coalesce. The stone is still of fair quality, but for the reasons already put before you, I will not be crushing until there is a good quantity of stone to put through.—New machinery. Two men are engaged in the ground for the erection and the maullock, which is being removed deposited in position for shunting, which will be commenced when the pumps are going. A man has been engaged quarrying the stone for the foundations, which I intend to commence laying out on Monday.

GRASCO.—The manager reports:—Harris's prospecting drive is looking exceedingly promising, and I have no doubt that this is the same lead as Stanley reef. It is about $\frac{1}{2}$ of a mile from the Bush, and I think we could pick up anywhere between the two mines. At 179 feet in we have struck a body of quartz 10 inches in thickness, but still rather mixed, but to-day we have come on the hard dolomite with the reef in it, which makes it look permanent. Out of the three dishes planned this morning I got a small prospect, a 11 dwt. one, and a 3 to 3 ounces one. The quartz is identical with our neighbour's.

BIO TINT.—The directors submit the following interim report upon the company's operations during the current year:—The deliveries of pyrites under existing contracts have continued to be satisfactory, and indicate an amount of consumption in excess of last year. The production of copper in precipitate and regulus at the mine, and of refined copper at Gowrie, continues without interruption, besides which the cost has been further diminished. Your directors have now to declare an interim dividend, out of the estimated year's profits of 12s. per share, free of income-tax, payable on November 2. The share transfer books will be closed from Saturday, the 24th inst., to Saturday, the 31st inst., both days inclusive. The share warrant option to be presented is No. 36.

WEST BOULDER.—Report received October 5 from the mine agent at Ongarrie: Mining progress. The find mentioned in my last turns out to be a lode 10 feet wide, and assaying up to 15 dwt. This is no doubt the main fracture lode, and is a most important discovery, although as far as I am personally concerned, not unexpected, as I have consistently contended that sooner or later this lode would be met with. You will note that the lode was met with close to the eastern boundary of lease No. 311, but as it has a westerly underlay it is dipping right into the company's property. I feel sure that this lode will improve in quality as depth is attained, judging from developments in the Iavashie where the best stone has been found in the deepest level something over 230 feet. The finding of the fracture lode has proved beyond doubt the great value of this property. Another very satisfactory development has occurred in the main shaft, water being worked in the neighbouring mines on the sides of your property, while the western one is almost certain to meet with the quartz vein seen higher up in shaft.—Lease 1501. No. 2 shaft has been sunk 133 feet, almost in the centre of the block. This was sunk in a large siliceous ironstone lode, which outcrops bodily on the surface across the lease, but is not being worked at present, the man being engaged timbering same from surface down. Owing to the dangerous nature of the ground in this shaft, I was unable to go below, but the manager informs me they had just come on the cap of a lode in the bottom, samples of which are on the brace. It is a ferruginous quartz with gossan and siliceous ironstone, the appearance leading me to believe it came from a large reef. The gold value of this stone has not yet been ascertained as it had only just come on when the men were compelled to leave off sinking to secure the sides of shaft, which were certainly most dangerous.—Lease 1502. Two shafts have been sunk on this block. No. 3, 110 feet deep, has been timbered to bottom and ladders fixed. At this depth a plate has been cut, and a crosscut driven west 27 feet. Close to shaft a lode fully 6 feet wide and underlying west was passed through. This is composed of quartz and ironstone, with schist and slate. The whole of this is gold bearing, a sample of 3 feet of the hanging wall side assaying 9 dwt. 5 grains per ton. Nothing further has been done to prove the value of this lode, the crosscut being continued in a south-westerly course to strike a large quartz and quartzite reef which has been opened on in No. 4 shaft, a little to the north-west in same block. It is expected to meet this reef in about 60 or 70 feet. The face of crosscut is at present in hard rock. No. 4 shaft is 43 feet deep. From the bottom a level has been driven north about 20 feet. The face carries a solid quartz reef 3 feet wide, embedded in quartzite rock with several veins of white quartz running through it, the whole being heavily charged with pyrites, a sample of which assayed 7 dwt. 15 grains of gold per ton. As this does not carry any true veins, I am of opinion that it will prove to be a very large gold-bearing reef in depth, and would advise that deep sinking be resorted to prove its value. The direction of this reef is 220° west of north, while the direction of the lode in No. 3 shaft is about 33° west of north. These will no doubt junction south of and near to No. 4 shaft, and seeing that both carry gold with the pyrites, it is an important and interesting point to follow, and should be done as soon as practicable. Leases 3155 east and 3432 aij in lease 1501 on the north and south respectively, while leases 3173 and 3474 adjoin lease 1501 on the north and south respectively, leases 1500, 1501, and 1502 are parallel and adjoining blocks. Thus the whole form one compact block. The reefs on 1502 will no doubt run into the other blocks north and south, but, as stated above, nothing has as yet been done to pick them up in the outlays leases which have only recently been pegged out on the known line of reefs. In a good water shed on lease 1503 a good dam has been constructed to hold 22,000 gallons. Several iron tanks have been conducted and fixed alongside, and from the recent small rains sufficient water was caught to repay value of same. Altogether the class of work done on the mine reflects great credit on the management. The position of the property is a good one, and the prospects and character of the lodes and reefs are such that I would recommend a vigorous development policy, believing that in depth payable ore will be met with.—Golden Crest Mine. This mine is situated about 3 miles north-west of Ongarrie, and was originally a 12 acre lease, but developments have, in the opinion of the manager, warranted the area being increased, and the total acreage is now 28 acres. Mr. Orsas in his report estimates the quantity of cement in sight at 20,000 tons, containing 15,000 ounces of gold, worth at £21.15s. per ounce £5,250. Cost of mining and milling should not exceed 30s. per ton, £10.00. Profit on ore £25,250. Estimated cost 10 head bollers, with small winding engine and plant complete, and erecting same £500. Sinking water shafts and providing pumping plant £2,750. Extras £300. Allowing for loss in tailings £1000, equal to £11.250. Net profit £1500.—From the above reports it will be seen that these properties are developing very favourably, and it is the opinion of the directors that it is advisable to at once form a separate company to take over and work the Golden Crest Mine, and arrangements are now in progress for doing so. An advance copy of the prospectus will be in due course sent to each shareholder in this company.—Taitapu Gold Estates (Limited), New Zealand, prospecting rights. With regard to the prospecting rights over this estate, referred to in the circular sent you on June 3 the directors, deeming such a course to be mutually advantageous, have entered into an agreement with the New Zealand Pioneers (Limited), who also hold prospecting rights for amalgamation of their interests, which will allow of the 50 acre blocks each company is entitled to obtain being worked together at a considerable saving. Work is now being vigorously proceeded with, and two 50 acre blocks have already been pegged out.

WHITE HORSE.—The manager, in his monthly report for August, shows that a total 232 feet has been sunk and driven during that month. The main shaft has reached a total depth of 263 feet, B winze 213 feet 6 inches, 2 feet to connect with first level 42 feet. The drive east from B winze is 110 feet, and west 225 feet. Under date September 13 the manager further reported that he was then working through broken ground, and added, "Bought to be very good below the break, judging from what this block is of the outer."

HIGH DEEP (District Heidelberg, Z.A.R.).—Report for August: The ledge for the past month has been the best on record for this property.

all the shafts are being sunk by contract, which I consider the most effective and economical method. In B and D shafts the tank stations were finished

and 17 feet long respectively. In C shaft the greenstone dyke which was

first encountered at 27 feet terminated at 42; then came 8 feet of slate, and

80 quartz came in again for the first time since last December. The

water in the shafts is not troublesome, as the pump handle it easily. There

has been little construction work going on during the month. At D shaft

the piping from new boiler to the winding and pumping engines was completed

early part of the month, and the boiler is now in service. At B shaft, the

boiler and engine houses have been housed in. At E shaft, a temporary shed

has been put up over the pumping engine. At O shaft, on account of the

failure of the temporary boiler and the increased depth of the shaft, it

will be necessary to erect one of the permanent Hains boilers, and the

conditions and building for same. No. of feet sunk, B shaft 63, C shaft 65,

D shaft 78, No. of feet driven, B shaft 10, D shaft 9. Remarks. Tank stations

completed in B and D shafts, 18 feet and 17 feet respectively. Nature of rock

met through. B shaft quartzite, C shaft dyke and quartzite, D shaft

slate. Average No. of miners employed. B shaft 3, C shaft 3, D shaft 3

Average No. of boys employed. B shaft 35 to 39, C shaft 35 to 38, D shaft 44 to

46. No. of feet timbered, B shaft 54, C shaft 47, D shaft 60. Total depth, B

shaft 265 feet, C shaft 437 feet, D shaft 478 feet.—E. H. Garthwaite, manager,

PESTARIA.—Report, dated October 3: The No. 2 lode in the 33 east is

very well defined, occasionally carrying a little pyrites. The Pozzoni lode at

46 centimetres wide, and carries a branch 50 centimetres wide, of which

25 centimetres is well mineralised, and the remainder is quartz containing

a little pyrites. Its value is 3 tons per fathom, at 1 ounce. The No. 1

lode is 46 centimetres wide, but carries more quartz than formerly. Its

true value is 3 tons per fathom, at 1 ounce, but its production during the

month has been exceptionally good. The 33 east has been started on the

last month intersected in the 33 crosscut north, for the purpose of reaching

the 33 east, which is about 10 metres further east.—Crosscuts. The

33 east is suspended, and the men set to drive as above. The

33 west is expected to intersect the Pozzoni lode during the

present month. The 70 north and 92 south are without particular

interest. There are nine stopes at work, yielding an average of 4½ tons

per ton at 1 ounce 7 dwt. per ton, viz.:—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

4 feet wide, carrying a little quartz containing pyrites on the footwall.—

At the 46 east on a contour a stope 4 feet wide, carrying a little quartz

containing pyrites on the footwall.—At the 46 east on a contour a stope

OCTOBER 10, 1896.

NEW ZEALAND.

BLAGROVE'S FREEHOLD.—The agents report under date August 22:—Crosset east. This drive has been extended 65 feet by six men. In driving we intersected a reef running north and south underlying west, averaging about 8 inches in thickness. It is composed of pug, and a nice looking compact body of quartz, highly mineralised, and strongly impregnated with illicite of iron, the indications are exceedingly good, and fully warrant us in pursuing it. Our intentions are to drive on the line of reef in the next few days, and thus I am probability juncture with the reef running east and west, which show good dish prospects in the surface drive. The footwall country has also greatly improved.—Crosset north. Four men have extended this drive 39 feet, and have been following a nice silicon seam, but have not yet cut the ledge which is running about east and west underlying north. Should this continue its proper course it will intersect the reef cut in the crosset east, when we ought to get some gold. The country rock in this drive is of a more kindly nature.—Shaft work. Two men have been engaged in the shaft fixing gear for sending in air to the men working in the crossets. Also fixing a float in the cistern to gauge the water for pumping. We are making the necessary preparations for sinking the shaft to the 300 feet level, and with this object in view we hope to resume sinking in another week. The requisite castings are on the ground, and other work is in a forward state.—Surface work. This has been suspended for a time, the men being employed on other work about the mine, but as soon as sinking is resumed they will be relieved, and work on the surface will be proceeded with. We propose sinking a winze from the surface drive on the reef running east and west, which has given good dish prospects. The smith has been engaged making ironwork for trucks, float staples, &c., for shaftmen, and other general work. The carpenter has been assisting shaftmen laying rails, &c., in crossets and other work as required. The machinery, pitwork, &c., are working well.

IRENE.—The acting manager reports under date September 2: During the past month the rise has been put up 37 feet. Total depth of block from No. 1 level to No. 2 level is 56 feet. The reef averages 4 feet the whole distance. The rise gives splendid ventilation for the opening up of the whole of the south portion of your property on the Try Fluke lode. The north drive on this lode has been extended 20 feet. The lode averages 2 feet, and is payable. 16 feet has been driven on south on this lode. It is 4 feet wide and gives good dish prospects. Work has also been carried on by extending the drive on the Irene lode a further distance of 8 feet. This lode is about 1 foot wide and gives good dish prospects. The low level to intersect the Hainsworth lode has been driven 35 feet through an excellent channel of country.

KATHLEEN CROWN.—The agent reports under date August 22:—Adit level. This has been extended 15 feet, making a total distance of 91 feet from the crosset, where we holed through to the engine shaft. This has been well timbered, and the tramroad laid to the shaft. A chamber has been cut and timbered 9 feet by 12 feet by 9 feet. We shall now resume sinking, and the effect of the connection will save 6 feet of winding mullock and water, which is a consideration in the case of manual labour.—No. 1 reef. This has been trenched along the outcrop 30 feet, where colours of gold were visible in the stone. We purpose continuing a drive already commenced to hole to the winze which is down 20 feet on the reef, that is about 20 inches in thickness. It is good looking stone that occasionally shows a little gold in the quartz. From its appearance I would expect a heavy deposit of gold at any time.—No. 2 reef. This reef, which is about 2 feet thick, has been driven 20 feet, and is very promising. It is composed of bright minerals, pyrites coated with manganese, with strong indications for gold. Should this prove payable it will give sufficient quartz to keep a battery employed. Surface prospecting on other reefs and leaders in the mine have been started, and fair prospects of gold have been obtained by crushing the stone.—Roads and buildings. Road making on the company's property has been continued by five men, and I am pleased to report that our main road to the mine is now completed with the exception of the metal. The office and store room are nearing completion.

KAPANGA.—The agent's report under date August 22: I beg to hand you the report for the four weeks ending the 22nd inst.—Lirnach's engine shaft. This has been sunk 21 feet by 15 men, making a total depth of 990 feet. The rock has been very hard and anything but good shooting ground up to the last 5 feet of sinking, since when the country rock has considerably changed for the better, and the indications point to a reef being near. The rock passed through in the last few feet of sinking is decomposed andesite, showing rich looking pyrites, also the rock is very compact and carries small mineral veins. The shaft has been timbered and divided, also the necessary ladder staves fixed. We have three men engaged repairing the engine shaft, and they have fixed the new balance lift and put the same to work, which makes a very considerable difference to the engine. It was started without a hitch—the work in connection with the fixing and sending down the column being carried on without stopping the work of sinking for a day. We hope to get the shaft down to the required depth—viz., 1,000 feet—in the next fortnight, all being well. After cutting the chamber we hope to intersect the reef by driving a crosset, which in all probability will be the means of intersecting the rich reef that was met with at the 945 feet. The reef continues as rich as it was there the company has a bright future in store, in fact everything points to success.—Rising above 930 crosset. This has advanced 19 feet by four men. During the time of rising the country rock improved, and we hope to make good progress. There is a large body of water to contend with, which is increasing as we advance. The reef at present is only 6 inches thick, carrying a little pug on the footwall, the hanging wall being well defined. The quartz is 4 inches thick, highly mineralised, but cannot at present report anything of importance.—Driving north of Gilroy's rise above the 510 on K-panga Reef. The drive has been extended 28 feet by two men. The reef is 15 inches thick, carrying a well defined hanging wall. The composition of the reef is quartz and pug mixed with native arsenic, and looks very encouraging. The country rock is decomposed andesite carrying small mineral veins, but so far only colours of gold are seen.—Stoping back of above-mentioned drive. Two men have been employed upon this work. One stop measured 50 by 6 feet and the other 16 by 6 feet. During the stoping the reef has improved, and is showing some strong dabs of gold; also in the second stop the country rock is of a very congenial character for the precious metal, and we are hoping this will prove a productive block of ground for stoping.—Driving south of the Kapanga reef at 420. This drive has been extended 22 feet by two men. The country rock is very hard, and letting out water freely at present. The reef is 2 feet thick, and a fine body of quartz. Although its character is most encouraging, no gold is seen. However, this may change at any moment, and produce rich ore, as it is the locality where we expect good results.—Rising above intermediate on Kapanga reef. The rise has been extended 14 feet by two men. The reef, which is 10 inches in thickness, is composed of quartz and very dark pug, but no gold is yet visible.—Stoping south of the above-mentioned rise. One stop measured 56 feet by 6 feet, and the other 15 feet by 6 feet. The reef is 1 foot thick, and only carries ore of low grade.—Rising above 422 main drive on Scotty reef. Two men have extended this rise 33 feet. The reef is a fine body of stone about 16 inches thick, composed of solid quartz, but only producing ore of low grade. We shall continue to push on this rise with the object of picking up the run of gold on the north side of the slide, and we hope to get better results in the next few feet of rising.—Stoping north of the last-mentioned rise. A stop has been worked by four men measuring 54 by 9 feet. The formation is 8 feet thick, and has a very broken appearance, being mixed with quartz veins and country rock. It carries small mineral veins, and at times shows colours of gold. The slide is the cause of the broken or disturbed state of the reef at present, but we shall push on with the stoping, in order to test this block, which has very favourable indications.—Rising above intermediate on Scotty's hanging wall portion. Rise extended 13 feet by two men. The reef is 8 inches thick, composed of quartz and pug, showing strong blotches of gold. The country at present is very broken, and when we get out of the disturbed country fully expect to meet with good results, seeing that gold was obtained in this vicinity.—Corby section. We have resumed sinking the Corby shaft in order to intersect the lode dipping into our ground, and we hope to intersect the reef in about 40 feet of sinking.—No. 1 drive. This has been extended 23 feet by two men. During the drive the reef has varied in width from 14 inches down to 5 inches, and is carrying a well-defined hanging wall. The reef is very compact, and the quartz is looking good enough for gold at any moment, although nothing of importance has been encountered as yet.—Driving crosset east from Corby's winze. The crosset was extended 15 feet by two men, and we have intersected the Kapa reef, which is very small. This has been stopped, as we can work it at a better advantage from No. 1 drive, which is extended 103 feet below this point, and in the same direction. All machinery and pitwork working well.

KOMATA QUEEN.—The acting manager reports under date September 2:—On the 21st ult. I visited your mine, proceeding there on foot from the Komata Bridge, my object in going this way being to inspect the road which, in connection with the Komata Reefs, will be your outlet, and to see how far arrangements could be made for cheap crushing for this mine either by obtaining water power in the neighbourhood or by transit from the mine by tramroad. The operations for the month have tended towards opening up two levels on the Te Koiti section of this property to be driven north on both lines of reef. For this purpose a survey of the property was made by Mr. Adams, lodes traversed and sites fixed upon, which are now about 30 feet below the top of the range forming the north boundary of this mine. These levels may be termed intermediate, as there is plenty of fall south for still lower levels, but the present sites fixed upon will be the first base of operations. The grade was also surveyed to connect the mine with the main pit track. Argall's lode site was covered by very deep surface and required 21 feet open cutting before sufficient solid country could be got to drive on. We have now driven 12 feet through pug and clay, put in three sets of timber, and made all secure to extend the level. I expect the reef to rise in the floor as we drive, at present it is under foot. Lavington's level is about 2 chains to the eastward of Argall's. Our operations here are on a large outcrop of stone, and an open cutting has been made 21 feet long 8 feet wide through quartz and loose rock shed from this lode. The present face is now up to the solid ground, and some of the quartz broken out on Saturday is kindly looking, and a trace of gold was obtained by pounding and dish washing. Two sawyers have been engaged, as timber is required for trucks, rails, huts, &c. They have 20 logs down at their pit site, estimated to yield from 14,000 to 15,000 feet of timber, and are now building a pit. The necessary mining timber has been cut and delivered. Trenching operations have not been abandoned, as I expected some fresh developments at the east side of Lavington's, where the lode was very wide and made a bend to the westward, and after trenching about 2 chains we crossed a reef 5 feet wide, and again cut it further south 3 feet wide, but no gold has yet been obtained. I hope to have better results from here to report next time. Tenders have been called and accepted for a pack train 77 chains long, 44 feet wide, and the lowest tender was £53 5s., or about 14s. per chain. This will do away with the present inconvenience of the men carrying all material for about a mile, which they have at present to do from the Komata reef mine. It will also connect the Komata Queen workings with either the main track to the Komata road or the Waitakere road, thus giving access in both directions. A site has also been excavated for a blacksmith's shop and a rough shop sufficient for present purposes erected. Over an acre of bush has been felled and cleared round the site of the shop and drives. The necessary tools have been procured, and good progress is being made. By this mail I am sending a drawing of Mr. Adam's plan showing the work done in trenching

and the elevation of the ground controlled by the levels now laid off. From these it will be seen how thoroughly the lodes have been traced and the large extent of ground which they yet must traverse in this company's property. I need hardly add that no effort has yet been made to find parallel lodes, which most certainly exist. From the elevations it will be seen that the backs are at least 300 feet in our ground from the datum of the levels shown. The timber is being cut for trucks and rails, and as soon as possible we will erect some huts for the men, who have now a long distance in a very muddy road to walk to their work in all weathers, a state of things by no means conducive to economical working or the well-being and comfort of the men. This also has seriously affected our ability to get good men for the mine. As we are now driving steadily upon quartz in the two levels lately started I hope to be able to advise the discovery of payable ore at an early date. I am still keeping before me the necessity of available water power, and think it probable that I may be enabled to advise you definitely on this next mail.

KOMATA REEFS.—The acting manager reports, under date September 3:—I have the honour to submit the following report upon your property. On the 21st and 22nd ult. I visited the mine walking from the main road to have a better knowledge of the present condition of the approaches.—Roads. With the exception of a few culverts and small bridges this road to the battery site may be considered completed. For the greater part of the distance it is not fit for more than horse traffic, certainly nothing in the shape of a load could be carried over it at present. By the end of the present month I anticipate a good portion of it will be safe for dry work, but portions of the low lying peaty ground will be impassable without corduroying. The extent of this I cannot say at present, but have no doubt that on the next visit I will be enabled to obtain some idea of the amount required. I shall approach the council to get this done, but do not think it probable that they will agree without some assistance from our company. I will do my best, however, for it is absolutely necessary that it should be able to carry heavy traffic, all the material for the battery, tramway, and mine having to go over it.—Mine. During the month a distance of 30 feet has been taken up in the bottom of the No. 1 drive north of main crosset, averaging about 3 feet high. This makes a total distance on this work of 55 feet, leaving about another 130 feet to go to No. 2 crosset. The prospects up to the last few feet were very good, 16 feet has been driven on south on this lode. It is 4 feet wide and gives good dish prospects. Work has also been carried on by extending the drive on the Irene lode a further distance of 8 feet. This lode is about 1 foot wide and gives good dish prospects. The low level to intersect the Hainsworth lode has been driven 35 feet through an excellent channel of country.

KATHLEEN CROWN.—The agent reports under date September 2: During the past month the rise has been put up 37 feet. Total depth of block from No. 1 level to No. 2 level is 56 feet. The reef averages 4 feet the whole distance. The rise gives splendid ventilation for the opening up of the whole of the south portion of your property on the Try Fluke lode. The north drive on this lode has been extended 20 feet. The lode averages 2 feet, and is payable. 16 feet has been driven on south on this lode. It is 4 feet wide and gives good dish prospects. Work has also been carried on by extending the drive on the Irene lode a further distance of 8 feet. This lode is about 1 foot wide and gives good dish prospects. The low level to intersect the Hainsworth lode has been driven 35 feet through an excellent channel of country.

KAPANGA.—The agent's report under date August 22: I beg to hand you the report for the four weeks ending August 22:—Adit level. This has been extended 15 feet, making a total distance of 91 feet from the crosset, where we holed through to the engine shaft. This has been well timbered, and the tramroad laid to the shaft. A chamber has been cut and timbered 9 feet by 12 feet by 9 feet. We shall now resume sinking, and the effect of the connection will save 6 feet of winding mullock and water, which is a consideration in the case of manual labour.—No. 1 reef. This has been trenched along the outcrop 30 feet, where colours of gold were visible in the stone. We purpose continuing a drive already commenced to hole to the winze which is down 20 feet on the reef, that is about 20 inches in thickness. It is good looking stone that occasionally shows a little gold in the quartz. From its appearance I would expect a heavy deposit of gold at any time.—No. 2 reef. This reef, which is about 2 feet thick, has been driven 20 feet, and is very promising. It is composed of bright minerals, pyrites coated with manganese, with strong indications for gold. Should this prove payable it will give sufficient quartz to keep a battery employed. Surface prospecting on other reefs and leaders in the mine have been started, and fair prospects of gold have been obtained by crushing the stone.—Roads and buildings. Road making on the company's property has been continued by five men, and I am pleased to report that our main road to the mine is now completed with the exception of the metal. The office and store room are nearing completion.

KAPANGA.—The agent's report under date August 22: I beg to hand you the report for the four weeks ending the 22nd inst.—Lirnach's engine shaft. This has been sunk 21 feet by 15 men, making a total depth of 990 feet. The rock has been very hard and anything but good shooting ground up to the last 5 feet of sinking, since when the country rock has considerably changed for the better, and the indications point to a reef being near. The rock passed through in the last few feet of sinking is decomposed andesite, showing rich looking pyrites, also the rock is very compact and carries small mineral veins. The shaft has been timbered and divided, also the necessary ladder staves fixed. We have three men engaged repairing the engine shaft, and they have fixed the new balance lift and put the same to work, which makes a very considerable difference to the engine. It was started without a hitch—the work in connection with the fixing and sending down the column being carried on without stopping the work of sinking for a day. We hope to get the shaft down to the required depth—viz., 1,000 feet—in the next fortnight, all being well. After cutting the chamber we hope to intersect the reef by driving a crosset, which in all probability will be the means of intersecting the rich reef that was met with at the 945 feet. The reef continues as rich as it was there the company has a bright future in store, in fact everything points to success.—Rising above 930 crosset. This has advanced 19 feet by four men. During the time of rising the country rock improved, and we hope to make good progress. There is a large body of water to contend with, which is increasing as we advance. The reef at present is only 6 inches thick, carrying a little pug on the footwall, the hanging wall being well defined. The quartz is 4 inches thick, highly mineralised, but cannot at present report anything of importance.—Driving north of Gilroy's rise above the 510 on K-panga Reef. The drive has been extended 28 feet by two men. The reef is 15 inches thick, carrying a well defined hanging wall. The composition of the reef is quartz and pug mixed with native arsenic, and looks very encouraging. The country rock is decomposed andesite carrying small mineral veins, but so far only colours of gold are seen.—Stoping back of above-mentioned drive. Two men have been employed upon this work. One stop measured 50 by 6 feet and the other 16 by 6 feet. During the stoping the reef has improved, and is showing some strong dabs of gold; also in the second stop the country rock is of a very congenial character for the precious metal, and we are hoping this will prove a productive block of ground for stoping.—Driving south of the Kapanga reef at 420. This drive has been extended 22 feet by two men. The country rock is very hard, and letting out water freely at present. The reef is 2 feet thick, and a fine body of quartz. Although its character is most encouraging, no gold is seen. However, this may change at any moment, and produce rich ore, as it is the locality where we expect good results.—Rising above intermediate on Kapanga reef. The rise has been extended 14 feet by two men. The reef, which is 10 inches in thickness, is composed of quartz and very dark pug, but no gold is yet visible.—Stoping south of the above-mentioned rise. One stop measured 56 feet by 6 feet, and the other 15 feet by 6 feet. The reef is 1 foot thick, and only carries ore of low grade.—Rising above 422 main drive on Scotty reef. Two men have extended this rise 33 feet. The reef is a fine body of stone about 16 inches thick, composed of solid quartz, but only producing ore of low grade. We shall continue to push on this rise with the object of picking up the run of gold on the north side of the slide, and we hope to get better results in the next few feet of rising.—Stoping north of the last-mentioned rise. A stop has been worked by four men measuring 54 by 9 feet. The formation is 8 feet thick, and has a very broken appearance, being mixed with quartz veins and country rock. It carries small mineral veins, and at times shows colours of gold. The slide is the cause of the broken or disturbed state of the reef at present, but we shall push on with the stoping, in order to test this block, which has very favourable indications.—Rising above intermediate on Scotty's hanging wall portion. Rise extended 13 feet by two men. The reef is 8 inches thick, composed of quartz and pug, showing strong blotches of gold. The country at present is very broken, and when we get out of the disturbed country fully expect to meet with good results, seeing that gold was obtained in this vicinity.—Corby section. We have resumed sinking the Corby shaft in order to intersect the lode dipping into our ground, and we hope to intersect the reef in about 40 feet of sinking.—No. 1 drive. This has been extended 23 feet by two men. During the drive the reef has varied in width from 14 inches down to 5 inches, and is carrying a well-defined hanging wall. The reef is very compact, and the quartz is looking good enough for gold at any moment, although nothing of importance has been encountered as yet.—Driving crosset east from Corby's winze. The crosset was extended 15 feet by two men, and we have intersected the Kapa reef, which is very small. This has been stopped, as we can work it at a better advantage from No. 1 drive, which is extended 103 feet below this point, and in the same direction. All machinery and pitwork working well.

KOMATA QUEEN.—The acting manager reports under date September 2:—On the 21st ult. I visited your mine, proceeding there on foot from the Komata Bridge, my object in going this way being to inspect the road which, in connection with the Komata Reefs, will be your outlet, and to see how far arrangements could be made for cheap crushing for this mine either by obtaining water power in the neighbourhood or by transit from the mine by tramroad. The operations for the month have tended towards opening up two levels on the Te Koiti section of this property to be driven north on both lines of reef. For this purpose a survey of the property was made by Mr. Adams, lodes traversed and sites fixed upon, which are now about 30 feet below the top of the range forming the north boundary of this mine. These levels may be termed intermediate, as there is plenty of fall south for still lower levels, but the present sites fixed upon will be the first base of operations. The grade was also surveyed to connect the mine with the main pit track. Argall's lode site was covered by very deep surface and required 21 feet open cutting before sufficient solid country could be got to drive on. We have now driven 12 feet through pug and clay, put in three sets of timber, and made all secure to extend the level. I expect the reef to rise in the floor as we drive, at present it is under foot. Lavington's level is about 2 chains to the eastward of Argall's. Our operations here are on a large outcrop of stone, and an open cutting has been made 21 feet long 8 feet wide through quartz and loose rock shed from this lode. The present face is now up to the solid ground, and some of the quartz broken out on Saturday is kindly looking, and a trace of gold was obtained by pounding and dish washing. Two sawyers have been engaged, as timber is required for trucks, rails, huts, &c. They have 20 logs down at their pit site, estimated to yield from 14,000 to 15,000 feet of timber, and are now building a pit. The necessary mining timber has been cut and delivered. Trenching operations have not been abandoned, as I expected some fresh developments at the east side of Lavington's, where the lode was very wide and made a bend to the westward, and after trenching about 2 chains we crossed a reef 5 feet wide, and again cut it further south 3 feet wide, but no gold has yet been obtained. I hope to have better results from here to report next time. Tenders have been called and accepted for a pack train 77 chains long, 44 feet wide, and the lowest tender was £53 5s., or about 14s. per chain. This will do away with the present inconvenience of the men carrying all material for about a mile, which they have at present to do from the Komata reef mine. It will also connect the Komata Queen workings with either the main track to the Komata road or the Waitakere road, thus giving access in both directions. A site has also been excavated for a blacksmith's shop and a rough shop sufficient for present purposes erected. Over an acre of bush has been felled and cleared round the site of the shop and drives. The necessary tools have been procured, and good progress is being made. By this mail I am sending a drawing of Mr. Adam's plan showing the work done in trenching

and the elevation of the ground controlled by the levels now laid off. From these it will be seen how thoroughly the lodes have been traced and the large extent of ground which they yet must traverse in this company's property. I need hardly add that no effort has yet been made to find parallel lodes, which most certainly exist. From the elevations it will be seen that the backs are at least 300 feet in our ground from the datum of the levels shown. The timber is being cut for trucks and rails, and as soon as possible we will erect some huts for the men, who have now a long distance in a very muddy road to walk to their work in all weathers, a state of things by no means conducive to economical working or the well-being and comfort of the men. This also has seriously affected our ability to get good men for the mine. As we are now driving steadily upon quartz in the two levels lately started I hope to be able to advise the discovery of payable ore at an early date. I am still keeping before me the necessity of available water power, and think it probable that I may be enabled to advise you definitely on this next mail.

KOMATA REEFS.—The acting manager reports, under date September 3:—I have the honour to submit the following report upon your property. On the 21st and 22nd ult. I visited the mine walking from the main road to have a better knowledge of the present condition of the approaches.—Roads. With the exception of a few culverts and small bridges this road to the battery site may be considered completed. For the greater part of the distance it is not fit for more than horse traffic, certainly nothing in the shape of a load could be carried over it at present. By the end of the present month I anticipate a good portion of it will be safe for dry work, but portions of the low lying peaty ground will be impassable without corduroying. The extent of this I cannot say at present, but have no doubt that on the next visit I will be enabled to obtain some idea of the amount required. I shall approach the council to get this done, but do not think it probable that they will agree without some assistance from our company. I will do my best, however, for it is absolutely necessary that it should be able to carry heavy traffic, all the material for the battery, tramway, and mine having to go over it.—Mine. During the month a distance of 30 feet has been taken up in the bottom of the No. 1 drive north of main crosset, averaging about 3 feet high. This makes a total distance on this work of 55 feet, leaving about another 130 feet to go to No. 2 crosset. The prospects up to the last few feet were very good, 16 feet has been driven on south on this lode. It is 4 feet wide and gives good dish prospects. Work has also been carried on by extending the drive on the Irene lode a further distance of 8 feet. This lode is about 1 foot wide and gives good dish prospects. The low level to intersect the Hainsworth lode has been driven 35 feet through an excellent channel of country.

KATHLEEN CROWN.—The agent reports under date September 2: During the past month the rise has been put up 37 feet. Total depth of block from No. 1 level to No. 2 level is 56 feet. The reef averages 4 feet the whole distance. The rise gives splendid ventilation for the opening up of the whole of the south portion of your property on the Try Fluke lode. The north drive on this lode has been extended 20 feet. The lode averages 2 feet, and is payable. 16 feet has been driven on south on this lode. It is 4 feet wide and gives good dish prospects. Work has also been carried on by extending the drive on the Irene lode a further distance of 8 feet. This lode is about 1 foot wide and gives good dish prospects. The low level to intersect the Hainsworth lode has been driven 35 feet through an excellent channel of country.

KAPANGA.—The agent's report under date August 22:—Adit level. This has been extended 15 feet, making a total distance of 91 feet from the crosset, where we holed through to the engine shaft. This has been well timbered, and the tramroad laid to the shaft. A chamber has been cut and timbered 9 feet by 12 feet by 9 feet. We shall now resume sinking, and the effect of the connection will save 6 feet of winding mullock and water, which is a consideration in the case of manual labour.—No. 1 reef. This has been trenched along the outcrop 30 feet, where colours of gold were visible in the stone. We purpose continuing a drive already commenced to hole to the winze which is down 20 feet on the reef, that is about 20 inches in thickness. It is good looking stone that occasionally shows a little gold in the quartz. From its appearance I would expect a heavy deposit of gold at any time.—No. 2 reef. This reef, which is about 2 feet thick, has been driven 20 feet, and is very promising. It is composed of bright minerals, pyrites coated with manganese, with strong indications for gold. Should this prove payable it will give sufficient quartz to keep a battery employed. Surface prospecting on other reefs and leaders in the mine have been started, and fair prospects of gold have been obtained by crushing the stone.—Roads and buildings. Road making on the company's property has been continued by five men, and I am pleased to report that our main road to the mine is now completed with the exception of the metal. The office and store room are nearing completion.

KAPANGA.—The agent's report under date August 22:—Lirnach's engine shaft. This has been sunk 2

The underhand stopes, No. 4 level, averages about 1 foot of heavy mineral stone. The underhand stop at the bottom of No. 3 averages about 10 inches of fair quality stone. The winzes from No. 3 level has been sunk 5 feet by two men, making the total 75 feet. The reef is about 15 inches thick and of good quality. The stopes at the back of No. 2 level vary from 6 inches to 1 foot of stone. Quality about 1 ounce per ton. Hauled during the fortnight, 120 tons.

VICTORY (Charters Towers).—Mining manager's report for the fortnight August 22.—No. 2 shaft. The 320 feet level has been driven 12 feet for the fortnight, making a total distance from shaft 457 feet. There is no change here. The drive in the rise over the No. 1 level has been driven 11 feet, total distance from starting point 20 feet. No change to report. The No. 7 level has been driven 7 feet, total distance 333 feet. The reef in the face is about 3 inches thick, of poor quality. 5 tons of quartz has been hauled from this shaft for the fortnight, making a total of 54 tons, all of which has been sent to the mill.

—No. 3 shaft. Stoping has been carried on over the No. 1 east level on a reef varying from 4 to 15 inches in thickness, of fair looking stone. The winze from the No. 1 east level has been sunk a further distance of 12 feet, total depth 59 feet, and carries about 6 inches of stone of medium quality. Stoping is being carried on over the No. 2 east level on a reef from 4 to 10 inches in thickness, of poorish stone. The No. 3 east level has been driven 17 feet. There is about 8 inches of good stone in the face. The No. 3 west level has been driven 16 feet. There is 6 inches of very heavy mineral stone in the face. The shaft has been sunk 8 feet, making a total depth of 347 feet from straight shaft. The reef will average nearly a foot right across the shaft, the quality being good. We have hauled 35 tons of stone from the shaft, total in paddock 85 tons.

VIOLET CONSOLIDATED.—Average return of samples taken from the mine during August: Violet shaft. First level west 3 feet 7 inches, 8 dwt. 19 grains. Second level west 3 feet 10 inches, 11 dwt. 21 grains. Third level west 1 foot 7 inches, 19 dwt. 5 grains. Third rise 7 inches, 1 ounce 11 dwt. 18 grains. Second level east 1 foot 3 inches, 7 dwt. 21 grains. Second level east 2 feet 4 inches, 2 dwt. 22 grains. No. 3 incline shaft 2 feet 8 inches, 5 dwt. 20 grains. Overlying reef 5 feet, 1 dwt. 22 grains. Flores shaft, first level north, 1 foot, 3 dwt. 9 grains. First level north 6 inches 8 dwt. 18 grains. First level north 1 foot, 18 dwt. 21 grains. First level south 1 foot 8 inches, 10 dwt. 5 grains. Second level south 5 feet 4 inches, 15 dwt. 21 grains. Second level north 2 feet 5 inches, 1 ounce 13 dwt. 7 grains, in shaft 11 inches, 17 dwt. 14 grains.

WHITE FEATHER REWARD CLAIM.—The manager writes:—The erec-

WHITE FEATHER REWARD CLAIM.—The manager writes:—The erection of the additional plant is making substantial and rapid progress compared with what any of the other companies are doing in the same district, and I expect to have the 20 feet head room drive finished within two months from September 1st. A number of stone has been opened out at the 50 feet level in the Golden Eagle shaft about 4 feet wide. On the Ueo lease recently acquired a very nice looking reef about 12 inches wide has been opened out on east boundary, showing gold fairly throughout. Principal work will be confined to opening out a large formation in the middle of this lease. Mr. Backhouse, the mine superintendent, reports:—2 ounce stone has been proved to exist for 60 or 70 feet along the 200 feet level drive, which is highly satisfactory.

LONDON AND WESTERN AUSTRALIAN INVESTMENT.—Mail reports

LONDON AND WESTERN AUSTRALIAN INVESTMENT.—Mail reports from the company's agents:—Hannan's Water Rights, Sinking has already been started on each of the Hannan's Water Rights Nos. 82 to 92. The total depth sunk was 156 feet, the best progress having been made with the shaft on No. 82, which was 45 feet down.—Kanowna Town Blocks. The company have purchased Town Blocks, Nos. 125 and 175 at Kanowna.—Ascot Hotel. Pumping machinery, capable of raising 20,000 gallons of water per day, is about to be erected in connection with the hotel on the company's Ascot Estate, near Perth.

AFRICAN. Ch. Exploration.

ANGELO.—The Anglo-French Exploration Company (Limited), as London agents of the Angelo Gold Mines (Limited), have received the following information from Johannesburg:—The following is the report of development, assays, and general operations for the month of August: South reef, South permanent main incline shaft sunk during the month 38 feet, total depth 588 feet. First level east drive driven during the month 66 feet, total distance 252 feet.—Assay value, August 3 average width of reef 36 inches, value 9.50 dwt.s. August 10 average width of reef 30 inches, value 7.70 dwt.s. August 24 average width of reef 48 inches, value 9.25 dwt.s. Winze bottom of west drive sunk during the month 36 feet, total depth 90 feet.—Assay value, August 3 average width of reef 24 inches, value 81.12 dwt.s. August 10 average width of reef 21 inches, value 205.25 dwt.s. August 31 average width of reef 24 inches, value 261.50 dwt.s. Second level east main drive driven during the month 9 feet, total distance 51 feet.—Assay value, August 24 average width of reef 24 inches, value 41.50 dwt.s. August 31 average width of reef 30 inches, 101.12 dwt.s. Second level west main drive driven during the month 5 feet, total distance 42 feet.—Assay value, August 31 average width of reef 30 inches, value 45.25 dwt.s. Third level north and south advanced.—North reef, No. 1 north permanent main incline shaft sunk during the month 4 feet, total depth 418 feet, sinking stopped through the erection of head gear. First level east drive driven during the month 65 feet, total distance 167 feet. First level west drive driven during the month 42 feet, total distance 140 feet. Second level east drive driven during the month 31 feet, total distance 110 feet. Second level west drive driven during the month 43 feet, total distance 108 feet. Third level east drive driven during the month 30 feet, total distance 33 feet. Third level west drive driven during the month 34 feet, total distance 34 feet. The reef in this section is disturbed and consequently of low grade. No. 2 north incline, main incline shaft, sunk during the month 50 feet, total depth 237 feet. First level east drive driven during the month 38 feet, total distance 94 feet.—Assay value, August 3 average width of reef 54 inches, value 17.50 dwt.s. August 10 average width of reef 23 inches, value 15.69 dwt.s. August 17 average width of reef 48 inches, value 15.50 dwt.s. August 24 average width of reef 30 inches, value 18.25 dwt.s. August 31 average width of reef 72 inches, value 41.50 dwt.s. First level west drive driven during the month 61 feet, total distance 110 feet.—Assay value, August 3 average width of reef 48 inches, value 8.75 dwt.s. August 17 average width of reef 38 inches, value 7.49 dwt.s. August 31 average width of reef 24 inches, value 10 dwt.s.—Construction. All surface works have been rapidly pushed ahead, and it is anticipated that the compressor, capable of driving 30 drills, will be at work early in September, which will greatly expedite the development of the south reef. The excavations for the 100 stamp mill have been commenced.

BROWN REEF.—Directors' monthly report for August: The directors have the pleasure of submitting the following report on the working operations of the company for August which shows a total profit of £15,648 9s. 3d.—Mine. Number of feet driven, sunk and risen, exclusive of stopes 934 feet. Quartz mined 15,102 tons. Quartz on hand, at surface, August 31, 3302 tons.—Mills. Number of days (24 hours) working 120 stamps 29 18²⁴ days. Tons crushed 16,318 tons. Tons crushed per stamp per 24 hours 470 tons. Yield in smelted gold 6855 ounces 13 dwts. Yield per ton 8 dwts. 3¹/₂ 561 grains—Cyanide works tons sands and concentrated treated 12,100 tons. Yield in smelted gold 4578 ounces 19 dwts. Yield per ton 7 dwts. 13¹/₂ 644 grains. Working cost per ton £s. 6 6204. Royalty cost per ton £s. 5 471d. Total cost per ton £s. 6 093d.—Slimes works. Tons slimes treated 2870 tons. Yield in smelted gold 433 ounces 10 dwts. Yield per ton 3 dwts. 3¹/₂ 18 grains. Working cost per ton £s. 6 151d. Royalty cost per ton £s. 702d. Total cost per ton £s. 9 853d.—Expenditure and revenue. Expenditure. 120 stamp mill and cyanide works 16,312 tons milled. To mining expenses £14,478 14s. 11d. or 17s. 8¹/₂ 948d. per ton, to transport ditto £285 6s. 3d. or 4¹/₂ 64d. per ton, to milling d.t.o. £2390 17s. 1d. or 2s. 9¹/₂ 43d. per ton to cyanide ditto £3029 12s. 10d. or 3s. 5¹/₂ 55d. per ton to slimes ditto £278 16s. 1d. or 2s. 2¹/₂ 94d. per ton, to general charge £1851 14s. 11d. or 2s. 5¹/₂ 67d. per ton, to mine development £985 3s. 4d. or 1s. 2¹/₂ 53d. per ton, total profit for month £15,648 9s. 3d. or 1s. 2¹/₂ 55d. per ton. Total £39,591 16s. 6d. or 2s. 8¹/₂ 303d. per ton.—Revenue. By gold amounts. 6,855 16¹/₂ 655 ounces from 120 stamp mill £23,858 12s. 9d. or 2s. 19¹/₂ 65d. per ton, by £4,575 95 ounces from 120 stamp cyanide works £21,233 3s. 9d. or 17s. 5¹/₂ 37d. per ton, by 432 09 ounces from 120 slime works £15,043 10s. 10¹/₂ 61d. per ton, total £1,367 60 ounces £39 591 16s. 6d. or 2s. 8¹/₂ 303d. per ton.—General. The following are the particulars of the lineal working done for the month:—Fifth level. Driving on south reef east and west 50 feet 6 inches.—Fifth level. Driving on main reef leader east and west 16 feet, crosscutting 31 feet 6 inches.—Sixth level. Driving on south reef east and west 75 feet 6 inches, driving on main reef leader east and west 21 feet 6 inches.—Seventh level. Driving on south reef east and west 211 feet 6 inches, driving on main reef leader east and west 203 feet, sinking winzes 133 feet, crosscutting 18 feet.—Eighth level. Binking No. 1 shaft 9 feet 6 inches, sinking winzes 24 feet 6 inches, crosscutting 12 feet.—Ninth level. Binking incline shaft 34 feet 6 inches, sinking No. 1 shaft 18 feet, total 94 feet 6 inches. The tonnage of ore exposed by the above works amounts to 2,194 tons. The 120 stamp mill and cyanide works ran with their accustomed regularity during the past month. As intimated in eighth annual report the company's slime works commenced operations at the latter end of July, and the first month's results will be found amongst the statistics given above. Being the first month's run many stoppages had to be made to effect minor alterations for the better working of the plant, and taking these things into account your directors consider the results satisfactory, and anticipate a still

DURBAN-ROODEPOORT.—Report for the month of August: Tons milled, 50,200, south reef, 7159 tons. Block 2, main reef, 161 tons. Total, 73280 tons. Block 1, south reef, 225 tons. Block 1, main reef, 2135 tons. Total, 23800 tons. Total, 9580 tons, producing 4155 ounces. Tailings treated, 6095 ounces, producing 1585 ounces. Total, 5740 ounces.—Block N. 1. 380 feet level, main east, east drive, 28 feet. 380 feet level, main reef, west drive, 30 feet. 380 feet level, main reef, sinking incline, 13 feet. 282 feet level, main reef crosscut, mouth of main reef, east drive, 35 feet. 100 feet level, south leader, west rise, 10 feet. Total, 115 feet.—Block No. 2, main incline shaft, sinking 51 feet. 7th level, main reef, west drive, 14 feet. 7th level, main reef, east drive, 25 feet. 7th level, main reef, west rise, 13 feet. 7th level, main reef, vertical rise to shaft, 12 feet. 8th level, south leader, east drive, 39 feet. 8th level, south leader, west drive, 67 feet. 8th level, south level drive east winner, 2 feet. 8th level, south leader, east rise, 21 feet. 8th level, south leader, west rise, 70 feet. 8th level, south leader, east drive, 27 feet. 8th level, south leader, west drive,

EAST NIGEL.—Extracts from the report for the fortnight ending September 12.—No. 3 incline has been sunk a further depth of 18 feet during the last two weeks, making the total depth 223 feet. The drives north and south from the 200 feet level have each been driven about 10 or 12 feet in. The air drive has been driven about 8 feet further, and we have now got through the drift and back to the reef. The air in this drive is not very good, and will not improve until we make connection with incline A, which will be about 55 feet further up. The water is all coming from this drive, the lower levels being comparatively dry. No. 2 incline is now 58 feet deep, and sinking is going on rapidly. The battery is now almost finished.

MAY CONSOLIDATED.—Report for the month of August.—Battery, 1000 tamps ran 27 days, crushed 12,150 tons, gold won 3686.95 ounces (average .019 dwts. per ton), valued at 72s. 8d. per ounce £13,258 lbs. 10d. Cyanide works. Siemens process: 3050 tons tailings treated, gold won 1851 ounces (million, equal to, say 1338.25 ounces fine gold (average 3.085 dwts. fine gold per ton) at 20s. per ounce £555.5). Proceeds of scrapping, &c. £47,100. 10s. 5d. Other receipts £47. Total £19,329 lbs. 14s. 3d. Working costs. Mining 12,150 tons, cost £2774.00. 16s. equal to 14s. £3128. per ton. Development 12,150 tons, cost £1461.00. 16s. equal to 14s. £4860. per ton. Total £10,835 lbs. 12d. equal to 14s. 10s. 172d. per ton. Tramming 12,150 tons, cost £241.1s. equal to 14s. 6d. 50s. per

on. Crushing and sorting 12,150 tons, cost £352 19s. 3d. equal to 5*972d.* per ton. Milling 12,150 tons, cost £2292 5s. 5d. equal to 4*9.13d.* per ton. Total 13,564 6s. 1d. equal to 2*2s. 93d.* per ton. Tailings treatment: Siemens process 9000 tons, cost £1227 15s. 3d. equal to 2*s. 87d.* per ton. Total 14,732 2s. 1d. Profit £537 17s. 2d. Expenditure on capital account, Construction, &c., 24589 12s. 7d.

EAST RAND PROPRIETARY. The Anglo-French Exploration Company

EAST RAND PROPRIETARY.—The Anglo-French Exploration Company (Limited) as London agents of the East Rand Proprietary Mines (Limited) have received the following information from Johannesburg—Driefontein, first level east drive driven 47 feet, total distance 200 feet.—Assay value August 10 average width of reef 8 inches, value 1475 dwtz. August 24 average width of reef 4 inches, value 450 dwtz. First level west drive driven this month 54 feet, total distance 147 feet.—Assay value, August 3 average width of reef 18 inches, value 751. August 10 average width of reef 24 inches, value 937 dwtz. August 17 average width of reef 24 inches, value 523 dwtz. August 24 average width of reef 24 inches, value 140 dwtz. August 31 average width of reef 15 inches, value 500 dwtz. Second level east drive driven this month 20 feet, total distance 20 feet.—Assay value. August 10, average width of reef 23 inches, value 553 dwtz. August 17, average width of reef 34 inches, 5125 dwtz. Second level, west drive, driven this month 19 feet, total distance 19 feet.—Assay value. August 1, average width of reef 6 inches, value 4375 dwtz. August 31, average width of reef 27 inches, value 1629 dwtz.—Construction. The foundations for engine and boiler house are practically complete.—Remarks. Some delay was occasioned through the supply of coal being delayed through the rinderpest regulations. The compressor plant is being erected, and will shortly be at work. Excavations for the 120 stamp mill have been commenced.—Agnes Munro main reef. North permanent main shaft sunk during this month 77 feet, total depth 300 feet. First level east drive driven during the month

7 feet, total distance 319 feet. Wins in bottom of west drive advanced this month 25 feet, total depth 84 feet. Assay value, August 3, average width of reef 24 inches, value 11-34 dwt., August 19, average width of reef 42 inches, value 11-16 dwt., August 24, average width of reef 36 inches, value 21-32 dwt., August 31, average width of reef 36 inches, value 39-37 dwt. Second level east west driven this month 51 feet, total distance 307 feet. Second level west drive driven this month 55 feet, total distance 348 feet. Assay value, August 3, average width of reef 54 inches, value 19-49 dwt., August 10, average width of reef 42 inches, value 23-67 dwt., August 17, average width of reef 36 inches, value 19-49 dwt., August 24, average width of reef 30 inches, value 13-40 dwt., August 31, average width of reef 30 inches, value 15-65 dwt. Second level, north incline below second level, sunk this month 16 feet, total depth below second level 80 feet. Assay value, August 3, average width of reef 36 inches, value 19-53 dwt., August 10, average width of reef 36 inches, value 5-00 dwt.—Construction. The smoke stack has been erected, the native compound completed, the windmill finished, and all dressed stone for engine beds is on the ground ready for the masons. Bilers are being built in, and a temporary head gear has been put up on north incline shaft.—Cinderella Gold, No. 1 incline shaft sunk this month 55 feet, total depth 328 feet. Second level station timbers fixed complete. Second level west drift driven this month 27 feet, total distance 653 feet. Third level west drift driven this month 23 feet, total distance 135 feet.—Assay value August 17. Middle section, 7 inches wide, value 8-25 dwt.; hanging wall section, 28 inches wide, value 2-50 dwt.; third level west drift driven this month 14 feet, total distance 353 feet.—Assay value August 17. Footwall section, 24 inches wide, value 18-50 dwt.—Construction. The excavations for foundations for No. 1 incline shaft will be finished next week, when the masonry will be proceeded with at once. New Blue Sky Gold Mining Company (Limited) : South reef. Second level, at drift, driven this month 19 feet, total distance 23 feet. South permanent incline shaft. Total depth to second level 205 feet. Sinking recommended August 29. Crossouts are being driven to intersect the south reef, and one north to connect with north incline shaft.—North reef. Second level, east drift, driven this month 26 feet, total distance 49 feet. Assay value August 8. Middle section, 20 inches wide, value 9-50 dwt.; August 17, middle section, 16 inches wide, value 8-25 dwt. Second level, west drift, driven this month

feel, total distance 71 feet. Assay value, August 8. Full width of reef inches, values 5 125 dwts.; August 26 Footwall section 9 inches, value 50 dwts.—Construction. The erection of the four drill compressor is in hand, will be completed in about a week.

GELDENHUIS ESTATE—Summary of operations for August:—Quartz valued 15,353 tons of 2000 lbs. After sorting and balancing in bins the quartz (120 heads) was 16,726 tons, yielding smelted gold 1976.62 ounces, valued \$13,291 18. 3d. Tailings treated 11,163 tons, 1638.65 ounces, concentrates 561 tons, 473 ounces, total 6369.53 ounces; \$5958 23. 6d., total 9,247 3d. 9d. Cost \$11,952 11s. 6d. Mining and hauling 2s. 11s. 6d., transport 4 sorting 10.53d., milling 2s. 6s. 2d., general maintenance 2s. 6.72d., total 1.11d. Charges 4.25d., total 13s. 3.44d. Expended on mine development \$834, total 16s. 0.07d.—\$2274 1s. 7d. Cost of producing and treating concentrates \$79 12s. 10d., cost of treating tailings \$1362 9s 2d., total \$15,688 15s. 1d. Cost for month \$2578 8s. 2d.—Capital account. Expended on machinery, new shafts, &c., \$179 12s. 12d. Number of feet driven and sunk during month 729'. The ore developed for the month amounted to 22,141 tons. The decrease in the output as compared with last month is due to the falling off of the grade of the ore from the upper levels, the prospects in the lower levels are, however, not better.

MEYER AND CHARLTON.—Report for month of August: Mine, Number 112, driven, sunk, and risen 828 feet. Ore opened up by development 8573 stamps 28 days. Quartz mined, 10,217 tons. —Mill. Number of days (34 hours) working 28 days. Ore crushed 902 tons. Yield in smelted gold 2872 ounces. —Assays. Yield per ton 6 dwts. 1¹¹/16 grains.—Cyanide works. Tailings treated 3 tons. Yield in bullion, 1639 ounces 7 dwts. 12 grains. Yield per ton treated 4 dwts. 5¹³/16 grains. Working cost per ton treated 3s. 3¹¹/16d.—Expenditure and revenue. Working expenditure. To mining (including maintenance) £22 12s. 6d., to transport £13 17s. 1d., to milling (including maintenance) 74 5s., to cyanide works (including maintenance) £1348 7s. 2d., to general expenses £1081 4s. 4d., to mine development account £1125 5s. Profit for month £394 19s., total £16,084 2s. 1d. —Revenue. By gold stamps £2,872 350 ounces from 80 stamp mill, at £73. 6s. per ounce, £15,508 1s. 10d., by 1,839 375 ounces from cyanide works, £6s. per ounce £918 2s. 6d., total 4,512 325 ounces. By stamp account, £6s. 6d. per ton No. 3 (3727 lbs.) £558 0s. 3d., by ranks £19 17s. 6d., total £84 4s. 1d.—Summary of revenue and expenditure (on basis of tonnage treated) 9502 tons. By value of yield.—Mill. Per ton £1 2s. 2¹¹/16d., by value of stamps £1 2s. 2¹¹/16d.—Cyanide works. Per ton 10s. 4¹¹/16d., total £1 12s. 8¹³/16d. per ton. To mining expenses 11s. 7¹¹/16d. per ton, to transport £3 18¹¹/16d. per ton, to milling

ing expenses £11. 7.710d. per ton, to transport 3⁴82d. per ton, to milling 51.51d. per ton, to cyanide works 2s. 8.194d. per ton, to general charges 3.30d. per ton, to maintenance 2s. 1.038d. per ton, to mine development 3s. 30d., to total working costs £11.4s. 7.254d., to profit 7s. 11.542d., total £2. 6.396d.—Expenditure on capital account. Mine development £2110 15s. 3d. machinery, plant, buildings, &c., £2219 0s. 3d. Main incline shaft £202 7s. 11d. £4832 3s. 10d. Crushed during the month:—Main reef 2759 tons, south 5767 tons, leader reef 936 tons, total 9502 tons.

PRINCESS ESTATE.—The following report on the company's operations month of August is published by the directors:—Mine. Number of feet driven feet.—Mill. Number of days (24 hours) working 35 stamps 234 days, ore delivered 4111 tons, yield in smelted gold 1994 ounces, average per ton 9.7 dwt.—Cyanide works. Tons of tailings treated 2893 tons, yield (in bullion of 6s.) 720 ounces.—Revenue and expenditure. Expenditure. Mining, hauling, pumping £453 13s. 3d., sorting and trampling £32 5s. 1d., reduction 1. 10s. 5d., general charges at mine and head office £435 2s. 8d., mine development redemption on 4111 tons at 5s. 6d. £1334 14. 5d., working expenses on cyanide works £651 18s. 8d., equal to £7081 15s. 7d., balances (profit for month) £2760 0s. 5d., total £2787 15s. 1d.—Revenue. Mill gold—1994 ounces at 7s. 77 16s. cyanide gold—7.70 ounces at 60s.—£1260, water rates and licences 0, total £2737 15s.—N.B.—The revenue from water rents and licences vary very much in each month, the average of the annual receipts under this heading has been adopted in this report.—Working costs per ton. Mining, hauling, and pumping on 4111 tons, 18s. 9.7d. Sorting and trampling on 4111 tons 1s. 7.4d. Reduction on 4111 tons, 4s. General charges on 4111 tons 2s. 4.4d. Total, 24s. 9.4d. Mine development redemption on 4111 tons, 2s. 6d. Cyanide works (on tonnage treated, 4s. 5.9d.) on tons, 3s. 2.1d. Total, 34s. 5.5d.—Total expenditure. Working expenses, 81 15s. 7d. On capital account—for development, permanent works, 35 9s. 6d. Machinery and plant, buildings, &c., £2233 1s. 3d. Total, £70 6s. 4d. Less amount redeemed from mine development on 4111 tons at 8s. 6s. £134 14. 6d. Total, £9534 4s. 10d. Five of the new 10 stampers are running during the month of August, and the full number of 40 stamps have been sprung from the beginning of September.

been running from the beginning of September.

ROYAL SHEBA.—July 31.—Mine. During the past week the work done in mine has been as follows:—The main hauling shaft has been sunk 5 feet. The engine and pump are working well. The crosscut on No. 2 level has been driven 5 feet south. The Royal Sheba adit level has been driven 10 feet, good ore having been found in this level during the past week. No. 2 shaft has been sunk 1 foot. No. 1 air shaft has been sunk 2 feet 9 inches. We are now just breaking through the hanging wall of Royal Sheba reef, adit level at Great Sheba has been driven 3 feet 8 inches, good looking ore has been met with during the week, showing visible gold and panning well, up to the present the assays have not corresponded with the pannings, crosscut from the winze in No. 1 level Great Sheba workings has been driven 8 inches north in very good ore. No. 1 level Great Sheba workings has been driven 3 feet 3 inches west. The ore from this end has during the week assayed as high as 2 ounces 3 dwts. 2 grains. This level has also been driven 3 feet east, the same kind of ore having been found here. The Great Sheba dry hard has been driven 4 feet. The ore here is now turning from oxidised to hard quartz, and has this week assayed as high as 1 ounce. The low level has been driven 4 feet 6 inches west. Malletry. The battery has been running during the past week, and has been shut down to day for cleaning up, except 5. Mine. The work done in the mine has been running during the past month has been as follows:—The crosscut No. 2 level has been driven 26 feet south in the vertical hauling shaft, and the vertical hauling shaft has been sunk 6 inches during the month, and some very good ore has been passed through. No. 2 air shaft has been sunk 9 feet 9 inches, and this week we shall be driving east and west. No. 1 air shaft has been sunk 23 feet. The Great Sheba reef has been driven 3 feet 3 inches.

not driving east and west. No. 1 air shaft has been sunk 23 feet. The Great She adit level has been driven 17 feet 7 inches; good ore showing visible gold and pyrites has been met with during the latter part of the month. A crosscut north has been started and driven 5 feet 6 inches. The winze Great She adit has been sunk 5 feet. We are now driving from this east and west—east first. It has been driven east 7 feet 3 inches, and west 3 feet 3 inches during the month. Very good ore has been met with in both these ends. The Great She adit level has been driven 14 feet 6 inches, and a great improvement has been place in the ore here. The low level tunnel has been driven 22 feet—40 feet. During the past month the battery ran 23 days 19 hours, crushing tons of ore, yielding 118 ounces 18 dwts.—August 15. Mine. During the last week the work done in the mine has been as follows:—The main haulage shaft has been sunk 5 feet 8 inches. A lot of water is being met with at present this shaft, almost 1½ cubic foot per minute. The hauling engine has been working very satisfactorily, hauling all the stuff from blasting, also hauling and pumping water, the consumption of coal being about 600 lbs. per 24 hours. The Royal Sheba adit level has been driven 6 feet. No. 2 air shaft has been driven 2 feet, and we have now started driving east and west. The Great She adit has been driven 4 feet. A crosscut from this level has been driven north 4 feet. From No. 1 level has been driven 3 feet 6 inches. Great She No. 1 level

4 feet. Great Shequarry drive 3 feet. Low level tunnel 5 feet.—August 12, ore. During the past week the work done in the mine has been as follows:—The main haulling shaft has been sunk 4 feet 6 inches. The Royal Sheb adit level has been driven 8 feet 6 inches, and from No. 2 air shaft has been driven 2 feet east and 2 feet west. The Great She adit level has been driven 3 feet 6 inches, and the crosscut from this level has been driven 3 feet 6 inches. The Great She quarry drive has been driven 3 feet. The Royal Sheb adit level has been driven 4 feet east and 3 feet 5 inches west. Great She adit level has been driven 2 feet. The low level tunnel has been driven 5 inches. August 29, Mine. The work done in the mine during the week has been as follows:—The main shaft has been sunk 2 feet 6 inches. The Royal Sheb adit has been driven 5 feet. The Royal Sheb adit from No. 1 air shaft has been driven 3 feet 6 inches. The crosscut Great She adit 5 feet. No. 1 air shaft Great She has been driven 2 feet east and 2 feet west. A crosscut 3 feet, and ore in this end has been assaying well during the week. A sample giving 1 ounce 19 dwts. 2 grains, and another sample 1 ounce 19 dwts. 2 grains. The low level tunnel has been driven 3 feet 6 inches. September 4. The Royal Sheb adit level has been driven 25 feet. The ground floor changing here, and has become very hard. The level No. 2 air shaft connect with Royal Sheb adit has been driven 9 feet east, and one of the samples taken from this end during the last week assayed as high as 1 ounce 15 dwts. 2 grains. This level has also been driven 2 feet west, air shafts. No. 1 has been sunk 5 feet 6 inches. Great She adit level has been driven 17 feet 6 inches north. No. 1 level Great She workings has been driven 13 feet 6 inches east, and during the latter part of the month samples from this shaft have assayed as high as 1 ounce per ton. This level has also been driven 11 feet west, and a crosscut south has been driven 6 feet. It was thought when we started driving this level that we were on the hanging wall of the reef, but after starting the crosscut we passed through a thin layer of slate and sand roof matter again, and are still in reef matter at present. We are driving this crosscut south in order to cut and test the reef which we found in two air shafts laying south of the Royal Sheb reef. The Great She quarry has been driven 14 feet, and during latter part of month samples from end have assayed as high as 1 ounce 19 dwts. The low level tunnel has been driven 21 feet 6 inches. On August 24 a prospector was started on the Eagle claim. I am pleased to inform you that during the short time he was at work there three reefs were found on the Tabernacle blocks, samples from these have assayed—the northern reef 4 dwts., middle reef 5 dwts. 5 grains. Some very good ore has been exposed in the prospecting cutting, and I am in hopes that with prospecting and developing something good may be found.—Battery. During the past month the battery ran 20 hours, crushing 626 tons, yielding 128 ounces 12 dwts. of gold.—The initial crushings of ore prior to the discovery of the rich ore are appended, and shareholders will remember that with the first 20-stamp battery history ends, and which will be on its way to the mine by October 5 next, a return of only 4 dwts. per ton will pay well, owing to the large quantity of ore and an easy method of mining. A cyanide plant for treatment of tailings will be purchased, and is being erected.—E. J. J., secretary.—100, January, 700 tons crushed, yielding without tailings 242 ounces, February, 700 tons crushed, yielding without tailings 193 ounces, March, 525 tons crushed, yielding without tailings 143 ounces. April, 500 tons crushed, yielding without tailings 98 ounces. May, 540 tons crushed, yielding without tailings 112 ounces. June, 525 tons crushed, yielding without tailings 113 ounces. July, 535 tons crushed, yielding without tailings 113 ounces. August, 625 tons crushed, yielding without tailings 123 ounces. September, 550 tons crushed, yielding without tailings 140 ounces.

ROBINSON GOLD.—General manager's summary of operations at the

ROBINSON GOLD.—General manager's summary of operations of the company for August:—Mine. Quartz mined 16,932 tons. Permanent works. Tin line shaft (west) sunk 53 feet, main incline shaft (east) sunk 73 feet, total 126 feet. Development. Driven 697 feet, raises 381 feet, crosses 115 feet, total 9 feet. Main incline shaft (west). Sinking below the tenth level 53 feet, at tenth level. Driving west on south reef 23 feet, raises 72 feet, crosses 46 feet, at tenth level. Driving east on main reef 55 feet, driving east on south reef 22 feet, raises 35 feet. —Eighth level. Driving west on south reef 57 feet, raises 17 feet. Ninth level. Driving west on main reef 41 feet, driving west on south reef 22 feet, crosses 15 feet, raises 15 feet. —Tenth level. Driving west on main reef 55 feet, driving east and west on south reef 25 feet, crosses 9 feet. —Main incline shaft (east). Sinking below the tenth level 73 feet. —Fifth level. Raises 78 feet, at tenth level. Driving west on main reef 32 feet, driving west on south reef 16 feet, raises 49 feet. —Seventh level. Driving east and west on south reef 44 feet, crosses 50 feet, crosses 49 feet. —Eighth level. Driving west on main reef 22 feet, raises 59 feet. —Ninth level. Driving east on main reef 55 feet, driving east and west on south reef 53 feet, raises 19 feet. —Tenth level. Driving east on main reef 52 feet, driving east on south reef 43 feet, total 115 feet. 1. Stamps at work 130, nett running time 29½ days, tons crushed 16,627, per stamp per day 4½ g. gold won from above 10,923 ounces 1 dwt. 2. Gold won from our own concentrate (by chlorination and cyanide works, cyanide process) 3,241 ounces 12 dwt. 3. Gold won from tailings (cyanide process) 19,000 ounces 5 dwt. 4. Gold won from slime, Rand Central O. R. Company (Limited) 10,800 ounces 19 dwt, total 20,820 ounces 5 dwt.

EXTRAORDINARY EXPENDITURE AND REVENUE, MONTH OF AUGUST, 1896.
Working Expenditure.

Working Expenditure.		Crushed 16,062 tons.	
Mining account (including mine maintenance)	£1,639 19 0	£11 9 0	
Milling account (including mill maintenance)	3,037 17 10	0 3 10 4	
General maintenance account	484 4 11	0 0 12 5	
General charges	1,659 12 5	0 0 0 0	
	£14,891 14 8	£0 12 0 0	
Expenditure on mine development (including main shafts)	3,841 14 7	0 0 0 0	
Ditto on machinery, plant, and buildings	2,435 13 8	0 0 0 0	
	£21,159 7 11	£0 0 0 0	
Retirement Account.			
Working expenses at cyanide and chlorination works	£3,581 17 0		
Cost of concentrates purchased (including receiving)	14,322 5 10		
	£19,073 10 9		

Profit for month		£39,073 10 9	£35,400 0 0
	Revenue.		
Gold account (mill) 10,923	ounces		£74,000 11 1
1 dwts.	...	239,869 2 0	
Sundry revenue	...	360 0 0	210,129 1 1
Slimes plant account:-			
355 tons slime delivered		1,296 19 7	
Company's share of profit	...	722 16 0	8,019 15 1
Retreatment account:-			
Gold account (tailings) 3041	ounces		
12 dwts.	...	10,059 12 0	
Gold account (own and purchased			
concentrates) 4944	ounces 19 dwts.	21,513 13 6	21,571 9 0
Plus amount received in excess of book entry for			
June and July gold	...	...	78 711

GOETZI - GÖTTSCHE

METAL CIRCULARS.

ERS. HARRINGTON and Co's Copper Report, dated Liverpool, October 1, contains the following:—Chill charters for the second half of November are as follows:—1100 tons for the previous fortnight, making 1150 for the month. The total since December 31 last is 18,000 tons, and the quantity of G.M.B.'s that have changed hands has only amounted to 6000 tons. Fluctuations have been very slight, cash being at £19.1s., to £17 15s. 3d., and three months at £17 15s., to £18 1s. 3d. The Bank rate to 3 per cent., on 24th inst. was fully discounted, and had no effect beyond an effort to increase the contagion on three months from £1. 10s. 4d., and which so far does not seem to have met with success. There has been a general absence of speculation, and operators seem to have been pursuing a quiet policy in the expectation of seeing matters both political and financial become settled. The American situation shows a general tendency to improvement, with better reports coming from the Continent, and our own country, hope to see more activity and a change for the better all round. Market is firm to day at £17 15s. 3d., cash, and £18 for three months, rather buyer sellers. The total stocks in Liverpool, Swansea, London, and Havre are 18,100 tons, against 31,069 tons on the 16th ult., showing a decrease of 13,000 tons, but with an increase for the previous fortnight of 155 tons, an increase for the month of 65 tons. The stocks include about 12,000 tons copper sold, but not yet delivered to smelters. The visible supply for the month is 34,139 tons, against 35,367 tons on the 16th ult., showing a decrease of 123 tons. The month's figures show a decrease of 12,078 tons. Imported and manufactured sorts are steady. Quotations being, tough cake £45 10s. to £51, select £49 10s., to £50 10s., Indian sheets £51 to £55, strong sheets £51, and new metal sheets 4½d. per lb. No sales of furnace material have been made. Import of Chill copper during the past fortnight 376 tons fine against 441 tons fine same time last year. Delivery of Chill copper during the past fortnight 441 tons fine, against 628 tons fine same time last year. Import of copper during the past fortnight 2144 tons fine, against 1737 tons fine last year. Delivery of other copper during the past fortnight 2051 tons fine, against 1779 tons fine same time last year. The total imports of copper into Liverpool and Swansea since January 1 have been 13 tons; deliveries during the same period 74,233 tons fine; for same time last year the figures were 50,211 and 49,271 respectively. Quotations are:—			
bars	£17 15s. 3d., cash and 3 months	£17 15s. 3d., cash and 3 months	Sept. 10, 1896.
ore	9s. 0d. to 9s. 9d.	9s. 0d. to 10s. 0d.	
regulus or matte	9s. 6d. to 9s. 9d.	9s. 6d. to 10s. 0d.	
slate	9s. 6d. to 9s. 9d.	9s. 6d. to 10s. 0d.	
o. Since our last the market for cash Straits has been dull, and prices have ranged between £58 11s. 3d. and £57 3s. 9d., closing quiet to day at £58 11s. 3d., Australian £55 10s., English £61 10s. to £62, and Peruvian £61 to £63. According to quality—Sulphate of copper. Makers price £15 to £16 1s. forward and forward. Lead during the past fortnight has been firm, and prices have ranged at £11 5s. to £12 1s. 3d. for Spanish, and £11 7s. 6d. to £12 1s. 3d. for English. Spoiler. The market since our last has been firm, and prices have closed steady at £16 17s. 6d. for ordinary Belgian brands. Gunmetal.			

Since our last the market has been firm, and prices have advanced to £1 12s. per bottle for Spanish, Bar silver. Prices have fluctuated between 30s. to 30s. 6d. closing to-day 30s. 6d. per ounce standard. Antimony dull, 30s. 6d. per ounce standard. One irregular, about £3 for 50 per cent. good quality, per cent. Bank rate of discount. The rate has been advanced from 2½ to 3 per cent.

Mr. JAMES LEWIS and Son, in their monthly report on Ores and Metals, dated Liverpool, October 1, states:—Copper. The market has lacked animation during the past month, though it has remained firm, with moderate fluctuations in the value of good merchantable copper, which closes 13s. 9d. higher for cash and 17s. 6d. for three months' prompt, the advance on the latter having widened 3s. 9d. with the increased dearth of money. The extreme quotations were marked during the first 10 days from £47 1s. 3d. for refined copper bars on the 1st to £10 3s. 6d. on the 10th ultimo. For refined copper there has been more inquiry, and manufacturers have taken a considerable quantity of American electrolyte at the low prices at which it was offered—this being the cheapest quality of copper obtainable—resulting in an advance of 1s. per ton during the last few days. About 500 tons of Rio Tinto tough bars have recently been sold at £50 per ton at the works—equal to £50 15s. delivered Birmingham, and an advance of 5s. to this was paid yesterday. For the best brands of best selected ingots sales at £51 5s. delivered Birmingham have been made. The greatly improved financial position in the United States, leading to a revival in trade generally both wholesale and retail, has kept the quotation for Lake Superior ingots firm at 10s. 6d. per pound. Should the Presidential Election on the 4th of next month result in the success of Mr. McKinley, a further large expansion of business is expected, in which copper will participate, and as American consumers are now very bare of supplies an important decrease in the quantity available for export is probable. Much less copper is now offered for sale from the United States than was the case some time ago. American shipments to Europe for October are 10,880 tons, making the total to date this year 88,666 tons, against 45,918 tons in the same period last year. Imports are 13,423 tons, and deliveries 29,365 tons, greater to date than during the same period last year. The total arrivals in England and France for the month have been 10,855 tons, and the deliveries 10,830 tons fine. Stocks have decreased 65 tons, and the visible supply 126 tons. The arrivals in England from Calli and from other countries 7241 and 7403 tons fine respectively. The arrivals here and in Swansea from the United States have been 1845 bars, 663 tons ingots, and 1527 tons matte, equal to about 3088 tons fine copper, in London £51 and in France 560 tons fine. The Chill charters for the month are advised as 1150 tons, and exchange 17½d. Quotations to-day are:—Chill bars and good merchantable copper £47 1s. 3d. for cash and £48 2s. 6d. for three months' prompt, English best selected ingots £50 15s. to £51 5s. and tough cake £52 15s. to £53 per ton. 2s. 3d. for one of 20 per cent. and 9s. 6d. per unit for Chill regulars or American matte free from silver. Chill exports to August 31 are:—

	Tons	Tons	Tons	Tons
Oct. 1, 1895.	15,928	16,628	15,193	
Oct. 1, 1896.	1895	1896	1896	
Oct. 1, 1897.	40,602	25,476	24,29	24,567
Oct. 1, 1898.	645	226	365	675
Oct. 1, 1899.	1,733	816	1,222	1,663
Oct. 1, 1900.	222	712	382	32
Oct. 1, 1901.	3,438	911	1,752	865
Oct. 1, 1902.	2,463	920	1,339	1,573
Oct. 1, 1903.	224	214	179	133
Oct. 1, 1904.	575	785	815	
Total.	49,393	30,450	30,514	30,589

Advised by mail and cable to date:—

	Oct. 1, 1895.	Aug. 1, 1896.	Sept. 1, 1897.	Oct. 1, 1898.
Oct. 1, 1895.	2,61	2,235	3,762	2,453
Oct. 1, 1896.	1,050	1,503	1,100	
Oct. 1, 1897.	52,594	34,215	35,408	34,139
Oct. 1, 1898.	40,602	25,476	24,29	24,567
Oct. 1, 1899.	645	226	365	675
Oct. 1, 1900.	1,733	816	1,222	1,663
Oct. 1, 1901.	222	712	382	32
Oct. 1, 1902.	3,438	911	1,752	865
Oct. 1, 1903.	2,463	920	1,339	1,573
Oct. 1, 1904.	224	214	179	133
Total.	49,393	30,450	30,514	30,589

Stocks of copper (tons fine):—

	Oct. 1, 1895.	Aug. 1, 1896.	Sept. 1, 1897.	Oct. 1, 1898.
Oct. 1, 1895.	1895	1896	1896	1896
Oct. 1, 1896.	40,602	25,476	24,29	24,567
Oct. 1, 1897.	645	226	365	675
Oct. 1, 1898.	1,733	816	1,222	1,663
Oct. 1, 1899.	222	712	382	32
Oct. 1, 1900.	3,438	911	1,752	865
Oct. 1, 1901.	2,463	920	1,339	1,573
Oct. 1, 1902.	224	214	179	133
Oct. 1, 1903.	575	785	815	
Total.	49,393	30,450	30,514	30,589

Stocks of copper (tons fine):—

	Oct. 1, 1895.	Aug. 1, 1896.	Sept. 1, 1897.	Oct. 1, 1898.
Oct. 1, 1895.	1895	1896	1896	1896
Oct. 1, 1896.	40,602	25,476	24,29	24,567
Oct. 1, 1897.	645	226	365	675
Oct. 1, 1898.	1,733	816	1,222	1,663
Oct. 1, 1899.	222	712	382	32
Oct. 1, 1900.	3,438	911	1,752	865
Oct. 1, 1901.	2,463	920	1,339	1,573
Oct. 1, 1902.	224	214	179	133
Oct. 1, 1903.	575	785	815	
Total.	49,393	30,450	30,514	30,589

Stocks of copper (tons fine):—

	Oct. 1, 1895.	Aug. 1, 1896.	Sept. 1, 1897.	Oct. 1, 1898.
Oct. 1, 1895.	1895	1896	1896	1896
Oct. 1, 1896.	40,602	25,476	24,29	24,567
Oct. 1, 1897.	645	226	365	675
Oct. 1, 1898.	1,733	816	1,222	1,663
Oct. 1, 1899.	222	712	382	32
Oct. 1, 1900.	3,438	911	1,752	865
Oct. 1, 1901.	2,463	920	1,339	1,573
Oct. 1, 1902.	224	214	179	133
Oct. 1, 1903.	575	785	815	
Total.	49,393	30,450	30,514	30,589

Stocks of copper (tons fine):—

	Oct. 1, 1895.	Aug. 1, 1896.	Sept. 1, 1897.	Oct. 1, 1898.
Oct. 1, 1895.	1895	1896	1896	1896
Oct. 1, 1896.	40,602	25,476	24,29	24,567
Oct. 1, 1897.	645	226	365	675
Oct. 1, 1898.	1,733	816	1,222	1,663
Oct. 1, 1899.	222	712	382	32
Oct. 1, 1900.	3,438	911	1,752	865
Oct. 1, 1901.	2,463	920	1,339	1,573
Oct. 1, 1902.	224	214	179	133
Oct. 1, 1903.	575	785	815	
Total.	49,393	30,450	30,514	30,589

Stocks of copper (tons fine):—

	Oct. 1, 1895.	Aug. 1, 1896.	Sept. 1, 1897.	Oct. 1, 1898.
Oct. 1, 1895.	1895	1896	1896	1896
Oct. 1, 1896.	40,602	25,476	24,29	24,567
Oct. 1, 1897.	645	226	365	675
Oct. 1, 1898.	1,733	816	1,222	1,663
Oct. 1, 1899.	222	712	382	32
Oct. 1, 1900.	3,438	911	1,752	865
Oct. 1, 1901.	2,463	920	1,339	1,573
Oct. 1, 1902.	224	214	179	133
Oct. 1, 1903.	575	785	815	
Total.	49,393	30,450	30,514	30,589

Stocks of copper (tons fine):—

	Oct. 1, 1895.	Aug. 1, 1896.	Sept. 1, 1897.	Oct. 1, 1898.
Oct. 1, 1895.	1895	1896	1896	1896
Oct. 1, 1896.	40,602	25,476	24,29	24,567
Oct.				

REVIEW.

The Cyanide Process of Gold Extraction. By James Park. (Champtaloop and Cooper, Auckland, New Zealand.)

The literature of the most recent process of gold extraction is growing at such a rate that it rapidly threatens to assume unwieldy dimensions. In addition to a mass of information in technical periodicals and the journals of scientific societies, a considerable number of text-books specially devoted to the subject have already appeared, and there is but little scope left for novelty or originality in a subject that has been worn threadbare, from the literary point of view, with surprising rapidity. The little book now before us, which pretends to be nothing more than a text-book for students and beginners, has, however, the advantage, shared by a comparatively small number of its fellows, of being written by a man who has a certain amount of real practical acquaintance with his subject, albeit on a small scale only. The author has the management of the small experimental plant, erected at the Thame by the New Zealand Government, for the purpose of investigating the suitability of the cyanide process to the various gold ores of New Zealand. In this capacity he has had to test a large number of gold ores, and these probably would be the more complex ores, and these more difficult to treat successfully, rather than simple ores presenting no problems of special difficulty. The author's experience is confined, of course, to New Zealand ores and New Zealand practice, and he has had to draw upon the writings of others to enable him to describe the process as practised in other countries. He has, however, shown a wise discrimination in selecting the authors he quotes from, and is evidently enough of a practical man himself to be able to appreciate the writings of practical men; hence it comes that he has drawn his information chiefly from the work of such men as Mr. Butters and Dr. Scheidel.

He has gone pretty thoroughly into the chemistry of the subject, and whilst avoiding a great deal of the more intricate portion of the theory, he seems to be sound and correct in his views as far as he goes; we think, indeed, that he has done wisely in not laying before students a number of the still somewhat hypothetical speculations in which some chemists have indulged. We do not, however, see why he should refuse to admit the action of atmospheric oxygen into the list of causes he gives of the loss of cyanide, more especially as he includes atmospheric carbon dioxide, which, according to him, decomposes the cyanide, liberating prussic acid; as he goes on to say that "the prussic acid thus liberated would be neutralised by any caustic-alkali present," it is obvious that the alkaline cyanide would be at once regenerated, and no cyanide would be lost. We need not point out to chemists that his mistake lies in imagining that a solution containing caustic alkali could at the same time contain free carbon dioxide. Mistakes of this kind are, however, rare, and the book is, upon the whole, a satisfactory one. It is clearly and simply written, and is illustrated by several very clear plans of cyanide plants, both for direct and for tailings treatment. It is, by the way, extraordinary that they have not yet found out in New Zealand that the stamp mill is the wrong machine for dry crushing. While it is still unapproached by any other machine as a wet crusher, and seems likely to hold the field in this capacity for some time to come, it was never intended for a dry crusher, and was only applied to that purpose, in the first instance, as a matter of temporary expediency. There are plenty of good dry crushers in the market, and it seems a pity that they do not awake to this fact in New Zealand.

This is not, however, a point for which Mr. Park can be held responsible, though we think he might have drawn attention to it. Nevertheless, he has described actual plants, and has covered the field fairly well, and has thus done good work. The most puzzling sentence to us in the whole book is one in the preface, where the author says:—"The manager of a cyanide plant need not be a trained analytical chemist. . . . Some experience in the working and management of milling machinery will always prove of great service."

If neither chemistry nor mechanics is essential to the manager of such a purely chemico-mechanical process, as the cyanide process undoubtedly is, we should like to know what they do consider an essential qualification for such a post in New Zealand.

WANTED.

** Prepaid Advertisements are inserted in this column at the rate of 8d. per line, with a minimum charge of 4s.

PROSPECTING.

A N ENGLISH MINING ENGINEER, of 20 years' experience in the Gold and Silver Fields of the United States, will shortly PROSPECT SOUTHERN NEVADA. One-half interest given to party paying out-of-pocket expenses. English references. Address, "ALP." MINING JOURNAL Office, 18, Finch Lane, London, E.C.

BRITISH COLUMBIA.

A N EXPERIENCED MINING ENGINEER, about to proceed to West Australia, via British Columbia, is prepared to ACCEPT ENGAGEMENTS to Inspect and Report upon Mining Properties in British Columbia. Terms very moderate. Address, "M. M. M." MINING JOURNAL Office, 18, Finch Lane, London, E.C.

AURIFEROUS ANTIMONY ORE.

WANTED ABOUT 15 TONS. Address, G. T. HOLLOWAY, 57, Chancery Lane, London, W.C.

MINING.—A QUALIFIED ENGINEER REQUIRED, to proceed to Rhodesia for the purpose to attend to the development of Mining Claims. He must be fully qualified, and have had experience. Small salary to commence. Address, with testimonials, stating salary required, "B. D." care of R. A. KNIGHT and Co., 12, Abchurch Lane, E.C.

ADDITIONAL WORKING CAPITAL. A Manchester firm can introduce same into a MANUFACTURING or MERCANTILE CONCERN of good repute at Bank rate. Principal only. Address in confidence to "C. 101," care of EMMISON'S Advertising Offices, Manchester.

WEST AUSTRALIA.

A N EXPERIENCED MINING ENGINEER (Assoc. M.I.C.E., Memb. Inst. Mining and Metallurgy, Memb. Fed. Mining Engineers), who is shortly leaving for West Australia, is OPEN to ENGAGEMENTS to INSPECT and REPORT upon Mining Properties, or as Consulting Engineer, or Management of Mines. Address, "MINER," care of THE MINING JOURNAL, 18, Finch Lane, London E.C.

TIN TICKETING.

THE fortnightly ticketing for tin ores was held at Tabb's Hotel, Redruth, on Tuesday. Results:—

Mines	Tons cwt.	VALUES OF ORES SOLD BY EACH MINE.		Value.
		£ s. d.	£ s. d.	
Dolcoath No. 1	14 0	35	7 6	495 5 0
do No. 1a	14 0	34	17 6	488 5 0
do No. 1b	12 0	34	15 0	417 0 0
Wheal Grenville a	20 0	36	17 6	737 10 0
do b	13 0	36	7 6	473 17 6
No. 2	4 0	22	17 6	91 10 0
Basset Mines (Lt ¹). No. 1	11 0	37	5 0	409 15 0
do No. 1a	11 0	36	17 6	405 12 6
Carn Brea and Tincroft 1	9 0	32	17 6	297 17 6
Mines (Limited) 1a	9 0	33	0 0	297 0 0
do No. 2	1 0	25	10 0	25 10 0
West Kitty	15 0	37	5 0	558 15 0
East Pool a	6 0	24	15 0	148 10 0
do b	6 0	24	10 0	147 0 0
do No. 2	1 0	9	0 0	9 0 0
Killifreth	12 0	35	0 0	420 0 0
Phoenix United No. 1	9 0	35	10 0	319 10 0
do No. 2	1 0	27	12 6	27 12 6
Wheal Kitty	9 0	37	7 6	336 7 6

177 0 £6102 17 6

AVERAGE PRICE PER TON, £34 9s. 7d.

Total purchases:—Carvedras, 37 1-6-h tons, £1331 15s. 5d.; Chayndour, 51 1-2 tons, £1787 17s. 11d.; Williams, 20 1-2 tons, £737 9s. 7d.; Redruth, 31 1-2 tons, £1120 17s. 11d.; Cornish, 23 1-2 tons, £829 11s. 8d.; Penpol, 12 tons, £295 10s. Total, 177 tons, £6102 17s. 6d.

AVERAGE PRICES PER TON.

August 11 £36 4 9 | September 22 £36 11 6
August 25 35 18 2 | October 6 34 9 7
September 8 36 1 6

FOR SALE.

** Prepaid Advertisements are inserted in this column at the rate of 8d. per line with a minimum charge of 4s.

GOLD MINE FOR SALE.

A MINING PROPERTY of 115 ACRES on the same belt as the Plumas Eureka, Plumas County, California. It has produced over \$675,000, but after being idle on account of trouble with parties supplying the water, it will require a large capital (say, \$100,000) to open a deeper tunnel and purchase the water supply, or utilize a fine water power some miles distant. For electric transmission, a large amount of ore will be made available by this tunnel, and the facilities for cheap working are unsurpassed. The price is \$250,000—one quarter down in cash, and the balance in one, two, or three years, with interest at 6 per cent., or other reasonable terms on the deferred payments.

For further particulars and report, apply to

W. M. COURTIS, Detroit, Mich.

GOLD MINING SHARES.

EXCEPTIONAL opportunity to PURCHASE several small lots of fully-paid SHARES at very low prices. Full particulars upon application to "SHAREHOLDER," MINING JOURNAL Office, 18, Finch Lane, E.C.

THE VALUABLE COLLECTION OF MINERALS

MADE by the late T. A. READWIN, Esq., F.G.S., &c., added to which is a complete collection of WELSH GOLD ORES and over 300 polished AGATES and MARBLES (duplicate collection of Cardinal Antonelli's) collected by the Princess of Etruria.

Apply, "MINERALS," care of MINING JOURNAL, 18, Finch Lane, E.C.

FOR SALE, ROBEY SEMI-PORTABLE UNDERTYPE MINING ENGINE, 9 inch cylinder, gearing 4 to 1, drum 5 feet diameter.

Address, THOMAS JOHNSON, Prescott Street, Wigton.

FOR SALE, TWIN RELIANCE AIR COMPRESSOR, by HATHORN and Co., London; Steel Receiver for same; all in first-class condition; 2 large BOILERS, recently overhauled. Full particulars and prices on application.

Apply, TAVY IRON AND ENGINEERING WORKS (Limited), Tavistock.

N.B.—Estimates furnished for all kinds of Mining Machinery, both New and Second-hand.

ROCK DRILL FOR SALE.

A NEW No. 2 INGERSOLL DUPLEX ROCK DRILL for hand power operation by two men. Will bore holes for blasting purposes from 1 to 2 inches per minute.

Apply, "PORTABLE," care of MINING JOURNAL Office, 18, Finch Lane, London, E.C.

IMPORTANT.

TO BE SOLD, the Mineral Property called "DIOS TE GUIE," producing Silver and Gold, situated in the Section of Yerachí, Municipality of Famosachic, in the District Guerrero, State of Chihuahua, Mexico, by the Rascon Hermanos Company, of Nuevo Leon, Rayon District, State of Chihuahua, Mexico.

For information as to Price and Conditions of Sale, apply to

RASCON HERMANOS

PUBLICATIONS.

MINING MACHINERY.—The best Book of its kind in the market (see reviews). Price 5s. To be had of HENRY DAVIES, County Mining Lecturer, Treborth, South Wales.

HOW TO INVEST IN MINES.

A REVIEW of the MINE, the COMPANY, and the MARKET; also a GLOSSARY of MINING TERMS.

By E. R. GABBOTT, Author of "How to Invest Money."

PRICE, 2s 6d.

LONDON: EFFINGHAM WILSON, Royal Exchange, E.C.

WORKS on MINING, METALLURGY, and ALLIED SUBJECTS.

A Geological Sketch of the Coolgardie Gold Field. By BRENTON SYMONS, F.C.S., M.I.C.E. 1s.

A Hand-Book of Gold Milling. By HENRY LOUIS, A.R.S.M., F.G.S., &c. Crown 8vo., 10s. net. Postage 6d.

The Golden Quartz Reefs of Australia. By WILLIAM NICHOLAS, F.G.S., with Illustrations. A series of Articles especially relating to the Bendigo Gold Field, Victoria. 2s. Post free.

A New Guide to the Iron Trade, or Mill Managers' and Stock Takers' Assistant. By JAMES ROSE, of Batman's Hill Works, Second Edition. Comprising a Series of New and Comprehensive Tables, practically arranged to show at one view the Weight of Iron required to produce Boiler Plates, Sheet Iron, and Flat, Square, and Round Bars, as well as Hoop or Strip Iron of any dimensions, to which is added a variety of Tables for the convenience of Merchants, including a Return Table. 2s 6d. Postage 2d.

The Colliery Ready-Reckoner and Wages Calculator. By JAMES IRELAND. 1s. ed., Post free.

Tacknote: a Form of Licence to Explore and Search for Mines. Minerals, &c. 1s. Post free.

Notes on the Philippine Islands: A Pamphlet Reprint. By FRANK KARUTH, F.R.G.S. 6d. Post free.

History of the Holmbush, Redmoor, and Kelly Bray Mines; with Several Sections of the Working. By W. F. WILKINSON. 1s. Post free.

The Law of Merchandise Marks. By FRANK SAFFORD, Recorder of Canterbury, and a Member of the London Chamber of Commerce. 7s. 6d.

LONDON: THE MINING JOURNAL, 18, FINCH LANE, E.C., and 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C.

SHIPPING.

CASTLE LINE.—CAPE & NATAL MAILED.

WEELY SERVICE FOR THE GOLD FIELDS OF SOUTH AFRICA.—The CASTLE COMPANY'S STEAMERS leave LONDON (East India Dock Basin, Blackwall) every FRIDAY, and sail from SOUTHAMPTON every SATURDAY.

Steamers.	London.	Southampton.
Tantallon Castle (via Madeira)	October 16	October 17
Grantully Castle (via Madeira and Canaries)	October 23	October 24
Harlech Castle (via Madeira)	October 27	October 28
Norman Castle (via Madeira)	October 30	October 31
Doune Castle (via Canaries)	November 6	November 7
Dunottar Castle (via Madeira)	November 13	November 14

* Also for Madagascar and Mauritius.

Return tickets to all Ports.

Free Tickets by Castle Express from Waterloo to Southampton. Apply to DONALD CURRIE and Co., 3, Fenchurch Street, London, E.C.

West End Agency, THOS. COOK AND SON, 13, Cockspur Street.

UNION LINE.

FOR SOUTH AFRICAN GOLD FIELDS.—WEEKLY SERVICE.—CAPE OF GOOD HOPE, NATAL, and EAST AFRICAN ROYAL MAIL STEAMERS.—The UNION STEAMSHIP COMPANY'S ROYAL MAIL and INTERMEDIATE STEAMERS will sail as follows for SOUTH and EAST AFRICA, calling at MADEIRA and TENERIFFE.

Steamers.	Antwerp.	Rotterdam.	Hamburg.	Southampton.
Trojan	October 6	—	October 10	October 11
Norman (two w.)	—	—	October 11	October 12
Gaut	—	—	October 24	October 25

† Tatar

Calling at Madeira, Via Teneriffe, 1 Via St. Helena, 1 Via

BUSINESS CARDS.

AERIAL ROPEWAYS.

OTTO SYSTEM.

R. E. COMMANS (late Commans and Co.), 6, Queen Street Place, London, C.

ASBESTOS.

THE UNITED ASBESTOS COMPANY (Limited), Dock House, Billiter Street, London, E.C. Asbestos Goods of the highest quality.

AUSTRALIAN MINERALS.

COLLECTIONS OF AUSTRALIAN MINERALS for Show Case, or for technical purposes supplied to order. Price from £2 2s. upwards. On receipt of order with remittance a collection will be made up and dispatched without delay.

MINES REPORTED ON.

J. B. AUSTIN, Mineralogist. Adelaide. S.A.

EXPLOSIVES FOR MINING.

NOBEL'S EXPLOSIVES COMPANY (Limited), Glasgow. Manufacturers of Gelignite, Gelatine-Dynamite, Dynamite, Detonators, Electric Detonator Fuses, &c., &c.

MAGNETIC ORE SEPARATORS

(KING'S PATENT.)

FOR SEPARATING IRON ORE FROM OTHER MINERALS. Apply, FREDK. J. KING, 96, Leadenhall Street, London.

METAL PERFORATORS, &c.

J. & F. POOL,

METAL PERFORATORS & WIRE WEAVERS. COPPERHOUSE, HAYLE, CORNWALL.

SPECIALITIES:—All descriptions of Perforated Metal Plates, Stamp' Battery-Screens, Wire Gauze and Sieves for Foreign and Home Mining, and other Purposes. Export orders carefully and promptly executed.

MINING ENGINEERS.

THEO. F. VAN WAGENEN, E.M., CONSULTING MINING ENGINEER.

Post Office Address: Box 589, Telluride, Colorado, U.S.A. Cable Address: "Van." Telluride, Colorado, U.S.A.

REPORTS AND EXAMINATIONS ON MINES

References: The Columbia University School of Mines, New York, and the Bank of Telluride, of Telluride, Colorado.

E. HENRY DAVIES, F.G.S., CONSULTING MINING ENGINEER,

6, GREAT WINCHESTER STREET, LONDON, E.C.

Author of "Machinery for Metalliferous Mines."

Joint Author of "Metalliferous Mines and Mining."

"Earthly and other Minerals and Mining." Undertakes the INSPECTION and MANAGEMENT of MINES at home and abroad, and the introduction of approved Properties to Capitalists. Minerals of all descriptions purchased in large or small quantities.

COLORADO MINING AND OTHER INVESTMENTS.

THOMAS TONGE, DENVER, COLORADO.

SPECIALITIES—Gold Properties; Leasing and Development Syndicates.

CABLE: "TONGE, DENVER." Code, "A. B. C." Fourth Edition.

F. H. MASON, F.C.S., Metallurgist, Assayer, and Analytical Chemist. Refractory gold ores a speciality. Can be consulted with reference to Nova Scotian properties. Queen Building, Halifax, Nova Scotia. Cable address: Mason, Halifax. (Morning's code).

MINING INSTRUMENTS.

JOHN DAVIS & SON, All Saint's Works, Derby; and 118, Newgate Street, London. Mathematical instruments and miner's safety lamps.

MINING MACHINERY.

ESTABLISHED 1834.

M. H. DAVIS and SONS, ABERYSTWYTH, SUPPLY EVERY DESCRIPTION OF MINING STORES AND MACHINERY.

LONDON OFFICE: 328, MANSION HOUSE, CHAMBERS.

FRASER & CHALMERS (Limited), 43, Threadneedle Street, London, E.C. Mining machinery of the most approved design.

ROBEY & CO. (LIMITED), Manufacturers of Steam Engines, Mining Machinery, &c. Makers of the Robey Patent Automatic Expansion Gear.—Globe Works, Lincoln.

GATES IRON WORKS, 73A, Queen Victoria Street, E.C. The Gates Rock and Ore Breaker effects a great saving in power.

ORE DRESSING MACHINERY. THE LÜHRIG COAL AND ORE DRESSING APPLIANCES (LIMITED), 32, VICTORIA STREET, LONDON, S.W.

COMPLETE DRESSING PLANTS for Gold, Silver, Lead, and Copper Ores, &c., designed and erected.

LÜHRIG SINGLE AND COMPOUND VANNERS for Low Grade Ores and Tailings. IMPROVED BREAKERS, ROLLS, JIGS, AND SEPARATING DRUMS.

Tests made with Samples at London Works Free of Charge.

ORE REDUCTION. THE CLARKSON-STANFIELD ORE REDUCTION COMPANY (Limited). Process for the treatment of gold, silver, copper, lead, and other ores. Address, 6, Colonial Avenue, Minories, London, E.

ROCK DRILLS. RICHARD SCHRAM & CO., 17a, Great George Street, Westminster, S.W.

TUBE MAKER. GEO. J. CHATTERTON, manufacturer of lead pipe, block pipe, and tinned composition gas tube, Caledonian Road, London, N.

MACARTHUR-FORREST PROCESS.

TO MINE OWNERS AND OTHERS

Having REFRACTORY GOLD ORES hitherto untreatable at a profit, the MACARTHUR-FORREST (PATENT) PROCESS OF GOLD EXTRACTION offers a solution of the difficulty.

The chief features of this Process are:—

SIMPLICITY, ECONOMY IN WORKING, and SMALL COST of PLANT.

PROPRIETORS:—

The Cassel Gold Extracting Co. (Ltd.)

Head Office—108a, Hope Street, Glasgow.

London Office—23, College Hill, Cannon Street, E.C.

Africa—The African Gold Recovery Co. (Ltd.), Johannesburg.

Australia—The Australian Gold Recovery Co. (Ltd.), 8, Post Office Chambers, Sydney, N.S.W., Charters Towers, Queensland, and James R. Fowler, 14 King Street, Adelaide.

United States—The Gold and Silver Extraction Co. of America (Ltd.), Denver, Colo.

Mexico—The Mexican Gold and Silver Recovery Co. (Ltd.), 2a, Calle de Providencia, No. 7, Mexico City, Mexico.

Chili—Mr. J. A. W. Murdoch, Calle Almendro, Valparaiso.

New Zealand—The Cassel Gold Extracting Co. (Ltd.), 6, Herald Buildings, Queen Street, Auckland.

Canada—Mr. W. Fellow Harvey, F.C.S., 717 and 719, Fender Street, Vancouver City, British Columbia.

The CASSEL GOLD EXTRACTING Co. (Ltd.) are manufacturers of CYANIDE, suitable for the MacArthur-Forrest Process.

For terms, apply at Head Office of the Company, 108a, Hope Street, GLASGOW.

THE AUSTRALIAN MINING STANDARD

IS THE

ONLY RECORD OF MINING, FINANCIAL, and ENGINEERING PROGRESS IN THE SOUTHERN HEMISPHERE.

PUBLISHED WEEKLY. ILLUSTRATED.

Subscription, 30s. per annum (payable in advance).

Dr. E. D. PETERS, Jun., says:—"The Mining Standard is the best Mining Journal in the World, save one."

THE AUSTRALIAN MINING STANDARD COMPANY, LIMITED.

Printers and Publishers,

SYDNEY AND MELBOURNE.

THE GLASGOW HERALD

(ESTABLISHED 1782)

IN THE

LARGEST & LEADING ADVERTISING MEDIUM

OUT OF LONDON.

It is next to *The Times* and *The Daily Telegraph*, each of which it exceeds in extent of Advertising during several months of the year. It is unrivaled among Daily Papers for the completeness of its Reports of the Mining and Metal Markets, besides Commercial and General News for all classes of the community.

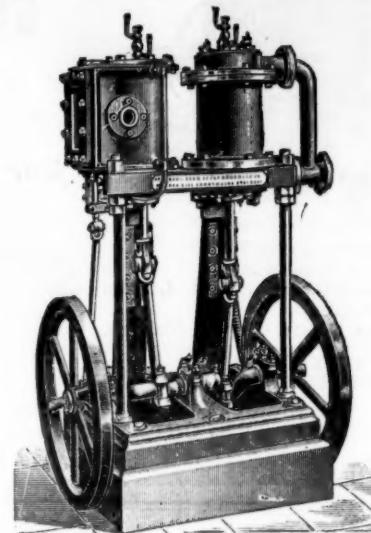
HEAD OFFICES: 65-69, BUCHANAN STREET, GLASGOW.

LONDON OFFICES: 65, FLEET STREET.

"CHAMPION"

ROCK DRILLS & AIR COMPRESSORS,

Unrivalled for Efficiency and Durability.



Contractors to the Admiralty and War Office.

The CHAMPION ROCK-BORER and AIR COMPRESSOR CO.

SOLE PROPRIETORS:

E. P. and H. P. VACHER, 63, Queen Victoria St., London, F.C.

Telegrams: "TURNSCREW, LONDON."

TURBINES, WATER WHEELS, WATER MOTORS, RAMS, &c.

CORNISH POST AND MINING NEWS

A HIGH CLASS UNIONIST NEWSPAPER.

Specially devoted to Cornish Mining, upon which it contains the fullest and most reliable information published. It is the only eight-paged newspaper printed in the Mining Division of Cornwall

ISSUED EVERY THURSDAY and SATURDAY, PRICE ONE PENNY.

The Cornish Post and Mining News Co. (Limited) East Charles Street, Camborne, Cornwall.

TONITE

IS RECOMMENDED TO CONTRACTORS, MINERS, PIT SINKERS, QUARRYMEN, AND OTHERS, AS BEING THE SAFEST OF ALL EXPLOSIVES.

TONITE is a most efficient and economical blasting agent, and is largely in demand. It is exempt from freezing and the consequent dangerous process of thawing.

THE COMPANY ALSO MANUFACTURE

GELIGNITE, BLASTING GELATINE, &c.

DETONATORS, Suitable for all Classes of Explosives.

ELECTRIC DETONATORS, High or Low Tension.

ELECTRIC APPLIANCES, of all Descriptions.

SAFETY FUSE.

Address—THE COTTON POWDER COMPANY (Limited), 116, QUEEN VICTORIA STREET, E.C.

ELLIMAN'S ROYAL EMBROCATION

AN EXCELLENT GOOD THING.

BOTTLES 2/2/6/3/6 JARS 10/6/20.

Prepared only by ELLIMAN SONS & CO. SLOUGH, ENGLAND.

ECONOMY IN THE STABLE.

USING ELLIMAN'S EASIER HAULAGE

From Lord Haddington, Tyngham, Pretonkirk, N.H. December 27th, 1885.

Sirs.—Elliman's Royal Embrocation is used in my stables, and I consider it indispensable in any stable, but especially in the stable of a Master of Hounds.

HADDINGTON.

Master of the Berwickshire Hounds.

From R. Burdon Sanderson Esq., Warren House, Belford.

July 10th, 1892.

Sirs.—Elliman's Royal Embrocation is used in my stables and I consider it very useful.

R. BURDON SANDERSON.

Master of Porcy Foxhounds.

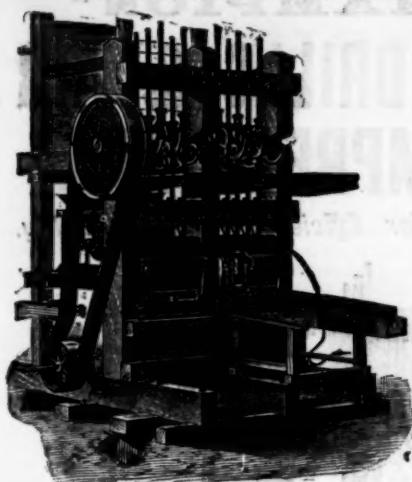
From Wm. J. Buckley, Esq., Penfai, Llanely.

July 16th, 1892.

DEAR SIRS.—I have much pleasure in recommending your Royal Embrocation. I always keep a stock in my stables and kennels. My farm bailiff has also found it of much value among my herd.

WM. J. BUCKLEY.

Master of Carmarthenshire Foxhounds.



GATES ROCK AND ORE BREAKER

Still leads the World. It has greatly cheapened the cost of Macadam and ballast, and made low grade ores profitable.

GENERAL MINING MACHINERY OF IMPROVED DESIGNS.

Stamps.

Hoists.

Smelters.

Chlorination Works.

Concentrators.

Rolls.

Elevators.

Cyanide Plants.

Pans and Settlers.

Connersville

Blowers.

Screens, Cars, &c.

Our Specialty is the Complete Plans and Installation of Mills. Engineers ready to visit any part of the World in the Interest of Customers.

AGENTS for HADFIELD'S MANGANESE AND CHROME STEEL, Manfd. by Taylor Iron and Steel Works TREMAIN STEAM STAMP MILLS. AGENTS FOR TRENTON WIRE ROPE.

ESTIMATES AND CATALOGUES FREE ON APPLICATION.

ORDERS AND CORRESPONDENCE SOLICITED.

GATES IRON WORKS.

EUROPEAN OFFICE:

73a, QUEEN VICTORIA STREET, LONDON, E.C.

Cable Address: "GYRATING, LONDON."

SACHSENBERG BROS., Ltd., ENGINEERS and SHIPBUILDERS, ROSSLAU-ON-ELBE (GERMANY).

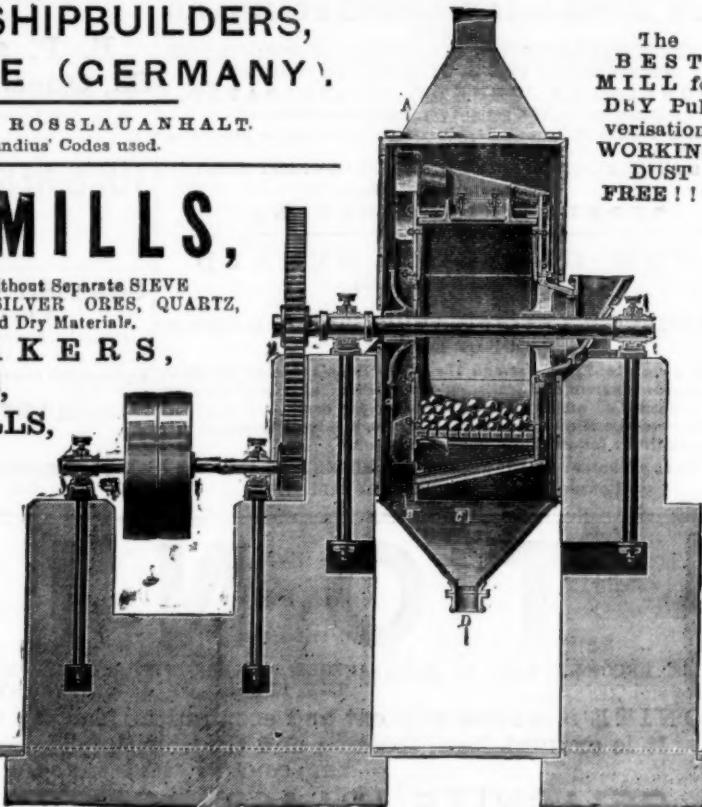
Telegrams: SACHSENBERG, ROSSLAUANHALT.
A. B. C. and Staudt and Hundius' Codes used.

THE LEADING MAKERS OF **BALL MILLS,**

With continuous FEED and DELIVERY, without Separate SIEVE CYLINDER for disintegrating GOLD and SILVER ORES, QUARTZ, CEMENT, SLAGS, and other Hard and Dry Materials.

STONE BREAKERS,
EDGE RUNNERS,
CRUSHING ROLLER MILLS,
STEAM ENGINES
AND BOILERS OF ALL
DESIGNS, WITH LATEST IMPROVEMENTS.
HIGH-SPEED ENGINES,
SHALLOW DRAUGHT STEAMERS,
DREDGERS, BARGES, &c.
BRICK-MAKING MACHINERY.

ESTIMATES AND CATALOGUES FREE
ON APPLICATION.

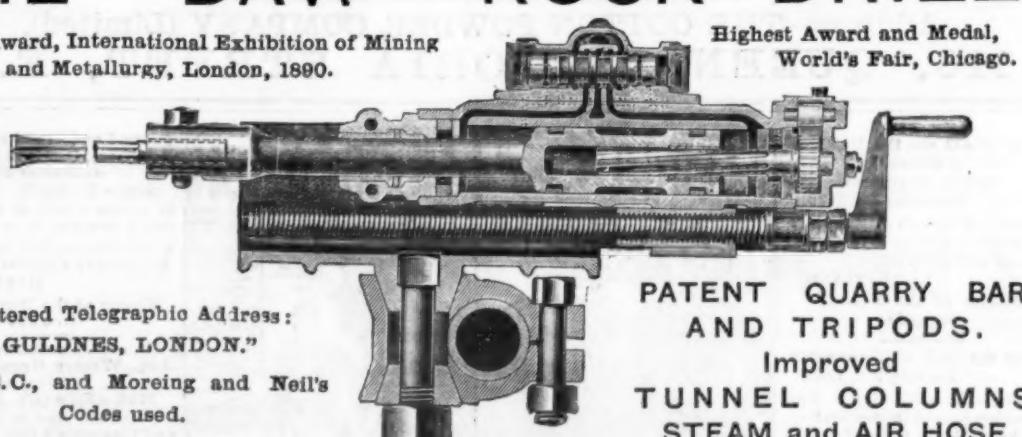


The
BEST
MILL for
D&Y Pul
verisation,
WORKING
DUST
FREE!!!

When enquiring, please mention this Paper !!!

THE "DAW" ROCK DRILL.

Highest Award, International Exhibition of Mining and Metallurgy, London, 1890.



Registered Telegraphic Address:
"GULDNES, LONDON."

A1, A.B.C., and Moreing and Neil's
Codes used.

Estimates for ROCK BORING and GENERAL MINING MACHINERY on Application.

PATENTEE AND MANUFACTURERS:

A. & Z. DAW, II, QUEEN VICTORIA STREET, LONDON, E.C.

ALSO SOLE MAKERS OF

THE "DAW" AIR COMPRESSING ENGINES.

CONTRACTS for all KINDS of ROCK DRILLING UNDERTAKEN.



Sold under Copyright Label bearing Trade Mark.

A Distinguishing Feature in these Goods is THREE SEPARATE CENTRE THREADS IN THE COLUMN OF POWDER. The make may always be recognised by these Threads, and users are cautioned to look for them and see that they have the Genuine Article.

MANUFACTURED BY

**WILLIAM BENNETT, SONS, & CO.,
ROSKEAR FUSE WORKS,
Camborne, Cornwall.**

TELEGRAMS: FUSE, CAMBORNE.

TURBINES. FACTS!



Little Giant Turbine.

FULL PARTICULARS SENT FREE.

**S. HOWES, HYDRAULIC
ENGINEER,
64, MARK LANE, LONDON,
AND AT SILVER CREEK, N.Y. U.S.A.**

THE WEST BRITON AND CORNWALL ADVERTISER.

The best Family Newspaper for Cornwall and the West of England generally.

MONDAY AFTERNOON, 4 Pages, One Halfpenny.
TUESDAY AFTERNOON, 8 Pages, 56 Columns, One Penny.
The Largest and Most Influential Journal of Cornwall.
The Best Advertising Medium in the West of England.
The Largest Circulation of any Cornish Newspaper.
The "WEST BRITON" contains more reliable information respecting Cornish Mines than any other Newspaper.

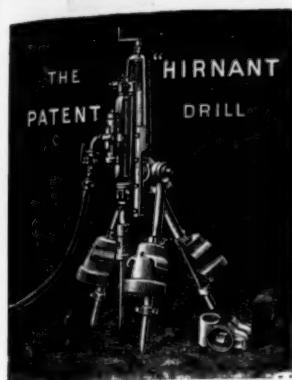
HEARD and SONS, Publishers, TRA-

ROBURITE N°. 3.

The Cheapest, Best, and Safest Explosive for Coal Mines, QUARRIES, MINES, AND CONTRACTORS' WORK.

As recommended by the Flameless Explosives Committee of the N.E. Inst. M.E., every Cartridge is stamped "Roburite No. 3," and each 5 lb. Package bears the date of Manufacture and Description of Ingredients.

THE ROBURITE EXPLOSIVES COMPANY, LIMITED,
103, CANNON STREET, LONDON, E.C. Works: GATHURST, near WIGAN.



THE PATENT "HIRNANT" MINING PLANT,
ROCK DRILLS, ROCK DRILL CARRIAGES,
AIR COMPRESSORS, STRETCHER BARS,
COLUMNS, CLAMPS, AIR PIPES, &c.

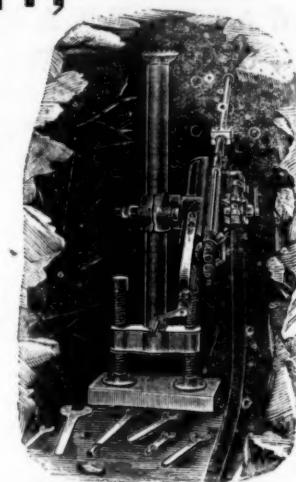
NEW PATENT SINKING CARRIAGE,
THE MOST RELIABLE MACHINERY KNOWN.

SOLE PROPRIETORS AND MAKERS

THOMAS LARMUTH and Co.,
Salford, Manchester.

INTENDING PURCHASERS WAITED UPON PERSONALLY

Agents for South Africa, Messrs. REUNERT and LENZ, Johannesburg.



Rock Drill, with Steel Clamp Mounted on Column.

EASTON, ANDERSON, & GOOLDEN, Limited,

Telegrams: EGYPTIAN, LONDON.

Telephone: 3695.

3, WHITEHALL PLACE, LONDON, S.W. ERITH IRON WORKS, ERITH, KENT.
And JOHANNESBURG ... F. W. STOKER, Esq. AUSTRALIA ... Messrs. HARROLD BROS. TASMANIA ... SALISBURY FOUNDRY CO.

MINING MACHINERY of every description. ELECTRICAL, HAULING, and WINDING PLANTS.

ELECTRICAL PUMPING PLANTS.

ELECTRICAL ROCK DRILLS.

Plants have recently been supplied to the following amongst other Mines:—

THE CHAMP D'OR DEEP LEVEL GOLD MINING COMPANY.
THE CASSEL COLLIERY COMPANY.
VILLAGE MAIN BEEF GOLD MINING COMPANY.
THE GOLD FIELDS DEEP.
METROPOLITAN GOLD MINING COMPANY.
MEYER AND CHARLTON GOLD MINING COMPANY.
ROODEPOORT DEEP LEVEL GOLD MINE COMPANY.

MAY CONSOLIDATED GOLD MINING COMPANY.
GEORGE GOCH GOLD MINING COMPANY.
SALISBURY JUBILEE JOINT MILL.
MOODIES GOLD MINING EXPLORATION COMPANY (LIMITED).
WITWATERSRAND GOLD MINING COMPANY.
FERREIRA GOLD MINING COMPANY.
NIGEL GOLD MINE COMPANY.

SOLE MANUFACTURERS OF THE

NIAGARA CRUSHER, PULVERISER, & CONCENTRATOR.

The most Successful MACHINE in the WORLD. A 5-foot QUARTZ MACHINE will do more and better Work than five head of STAMPS. Costs half the Price. Uses half the Power. Repairs do not exceed 2½ per cent. per annum on first cost. Any Ore, however Refractory, is speedily reduced to a Uniform Power of any desired fineness, while the CONCENTRATOR SEPARATES THE VALUABLE ORE FROM THE MATRIX WITHOUT EXTRA POWER.

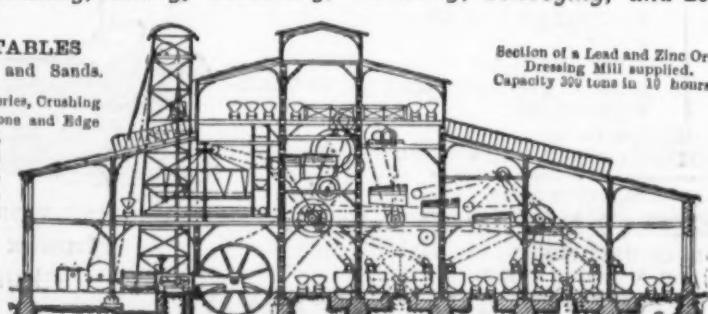
For full particulars of the NIAGARA PULVERISER, apply to the

NIAGARA PULVERISER SYNDICATE (LIMITED), 3, WHITEHALL PLACE, S.W.

THE HUMBOLDT ENGINEERING WORKS CO., KALK, NEAR COLOGNE. MAKERS OF MINING, ORE DRESSING, & COAL WASHING PLANT.

Reducing, Concentrating, Sizing, Screening, Elevating, Conveying, and Loading Machinery.

PATENT LINKEBACH TABLES
For enriching Slimes and Sands.
Stamp Batteries, Crushing, Rolling, Dredges, Mills, Vibrating, Ball and other Mills, Trommels, Jiggers, Spatulae, Spatulastone, and Belt Tables.



Section of a Lead and Zinc Ore Dressing Mill supplied.
Capacity 300 tons in 10 hours.

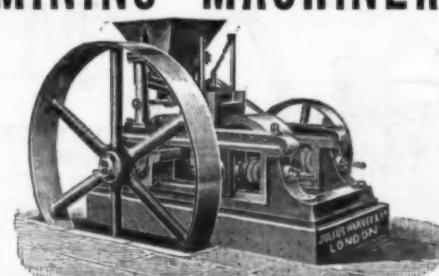
HIGH-CLASS ENGINES,

Steam, Boiler, Ironwork, Winding, Hauling, and Pumping Plant, Air Compressors, Percussion and Rotary Rock Drills, Guibal Fans, Ventilators, Cages, Ships, Kips, Tippers, Conveyors, Elevators, Lifts, Picking Tables and Bands, Spiral Screens, Chain Haulage.

EXPERIMENTAL PLANT

For testing Ores, &c., at Kalk.

MINING MACHINERY.



CRUSHING ROLLS.
STAMP BATTERIES.
ENGINES & BOILERS.
Machinery of every description Purchased, Inspected, and Shipped on favourable terms.

JULIUS HARVEY & CO., 11, Queen Victoria St., LONDON, E.C.

Telegrams: CHOSHEAD, London.

Catalogues on Application.

